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COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF FORESTS AND WATERS

WATER RESOURCES SERVICE

Stream Flow Records

FOR THE FOUR YEARS

October 1, 1928, to September 30, 1932.

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STREAM FLOW RECORDS
OF
PENNSYLVANIA
FOR THE FOUR YEARS
OCTOBER 1, 1928, to SEPTEMBER 30, 1932.

STREAM GAGING, FLOOD WARNING, AND PRECIPITATION

This volume contains records for the four years ending September 30, 1932. All stream flow records previous to and including those for 1911, were published in the 1910-1911 Report of the Water Supply Commission of Pennsylvania. For the years 1912 to 1921, they were published in the annual reports of the Water Supply Commission, with the records for 1917-1918 and 1919-1920 combined and issued in biennial form. Beginning with 1922 the records have been published annually by the Department of Forests and Waters, Water Resources Service, in reports entitled Stream Flow Records of Pennsylvania. To and including the 1913 records, they were compiled for calendar years. The 1914 record was tabulated for the nine months January to September, while subsequent records have been published for water years, October 1 to September 30.

Since June 1, 1931, the water resource investigations in Pennsylvania, including the collection of stream flow data, have been carried on under cooperative agreement with the Water Resources Branch of the United States Geological Survey.

STREAM GAGING

At the beginning of this report period on October 1, 1928, seventy-nine stream gaging stations were in operation. Twenty-eight additional stations were established during the four years and five stations formerly maintained by other agencies were transferred to this office for operation. During the four years nine stations were discontinued leaving one hundred and three stream gaging stations in operation on September 30, 1932. Thirty-six stations were supplied with wells, shelters, and water-stage recorders, making a total of forty-six recorder installations in the State.

This volume contains records for one hundred seventeen gaging stations. Descriptions of stations, tables of daily and monthly discharge, summary of run-off in second-feet per square mile, run-off depth in inches, precipitation, and per cent run-off to precipitation are given for stations having a satisfactory rating, while descriptions

of stations, daily mean gage heights, and discharge measurements are published for others.

The flows in the primary drainage basins of the State for the four years ending September 30, 1932, as represented by a total drainage area of 41,860 square miles, equivalent to an area of 92.8 per cent of the total area of Pennsylvania, ranged from 2 to 37 per cent below the mean flows for the years subsequent to 1909.

The flow for the year ending September 30, 1929, was only 2 per cent below the normal for the 20 years 1910-1929, which closely approximated a year of normal run-off in Pennsylvania.

For the year ending September 30, 1930, the flow was 11 per cent below the normal for the 21 years 1910-1930, and the deficiency developed principally during the months July to September.

During the year ending September 30, 1931, the flow was 37 per cent below the mean for the 22 years 1910-1931. It was the lowest point in the 23-year period, while the highest was in 1928 with a flow nearly two and a half times that of 1931. The low flow in the 1931 water year occurred chiefly during the months October to March inclusive.

The flow for the year ending September 30, 1932, was 21 per cent below the normal for the 23 years 1910-1932, and the deficiency for the year developed principally during the months October to December and June to September.

The above deductions do not present a fair representation of conditions as they affected the utilization of water. This is particularly true for the years ending September 30, 1930, and 1931. Due to the fact that drought conditions developed during the early summer months of 1930 and extended far into the following water year the replenishing period which usually takes place early in October did not occur.

Pennsylvania has not been subjected to such frequent and devastating droughts as some other parts of the country. However, ten noteworthy ones have visited this State during the last fifty-six years but there are no records to show that any of them were accompanied by losses and inconveniences to population and industry as set forth by that of 1930.

The effects of the 1930 drought in Pennsylvania may be best portrayed by setting forth some of the outstanding hardships experienced. Water supplies from small streams and ponds, shallow wells, and thousands of springs became exhausted. Shortages in domestic supplies interfered with both economic and social activities.

Conditions became so acute in some localities that in four of the southwestern counties it was necessary to use mine water. Resort was made to water that had collected in abandoned quarries in Lancaster County. In the south central section of the State, many water

supplies failed in August. At Gettysburg waste condensor water was pumped into the distribution system at a temperature of 125 degrees. Restrictions were placed on the use of water at Wilkes-Barre, where their three billion gallon Pike Creek Reservoir was lowered to 20 per cent of its capacity. National Guard trucks were used to haul water from Frackville, Schuylkill County, to the Fountain Hill Hospital, and in many other localities, auxiliary or emergency supplies became necessary.

Streams that could be used safely for the disposal of sewage and trades waste when the flows are normal, became menaces during the drought period due to the insufficient amount of water to dilute and carry away the refuse.

Water supplies from streams at low stages and from other sources when ground water levels are low, may be detrimental to health. The potential danger of an outbreak of disease under such conditions was eminent in 1930. The Pennsylvania Department of Health sent traveling laboratories into 40 of the 67 counties in the State and over 5,000 domestic water supplies were investigated. By this precautionary measure impure supplies were readily detected and sickness from the use of contaminated water was negligible.

Industries were compelled to suspend operations at times, due to inadequate supplies for process purposes, causing intangible losses during a year of marked business depression. Notwithstanding, the shortages in many towns and cities and at numerous industrial plants were less keenly felt than had business conditions been normal.

Agricultural crops were a total loss in some sections and only small parts of anticipated revenues were realized from others. In 1930, although the total acreage planted was greater than in 1929, lower yields except for winter grains and lower prices for all crops resulted in a value for the major field and fruit harvest of almost ten per cent less than for the previous year.

Navigation on the Monongahela River was hampered and had it not been for the release of 23,600,000,000 gallons of impounded water, by the West Penn Power Company from their Lake Lynn Reservoir, it would have been necessary to suspend operations on the lower reaches of the river in July.

Water power outputs were below any expected productions. Electricity generated by public utility plants in Pennsylvania during 1928, a very wet year, was practically the same as in 1930, while little more than two-thirds of that generated by water power in 1928 was furnished by hydro-electric plants in 1930. Fortunately, nearly all water power plants generating electricity for public use are interconnected with large systems that include steam plants which eliminate interruption in service.

Forestry suffered great losses through lack of tree growth, dying of trees, and destruction by an unusual number of fires. Measurements and observations by the Pennsylvania Department of Forests and Waters on over 1,520,000 acres of State Forest lands, showed that the tree growth in 1930 was 25 per cent less than in 1929. On the basis of an average annual growth of 25 cubic feet per acre, the 13,206,000 acres of forest land in the State suffered a loss of 82,538,000 cubic feet in 1930.

The ground was so dry and the material on the forest floor so inflammable that the smallest spark would cause a fire that would burn down into the soil as far as there was any vegetable matter to burn. For this reason the forest fires were difficult to extinguish and required constant watching. During the year 6,700 forest fires were reported which was 3,000 more than for any previous year. This hazard became so great that it was necessary for the Commonwealth to expend almost a half million dollars for fire extinction.

The distribution of rainfall during the growing seasons 1931 and 1932 was in most sections favorable to plant life and consequently, so far as vegetation was concerned, the drought ended with the growing season of 1930. However, as related to water supply, the effects of that drought were still being felt at the end of September 1932.

In 1932 there was a deficiency in precipitation over the state every month from April to September and during September 1932 Pennsylvania streams reached the low levels of the drought year 1930. That levels did not recede below the 1930 minimum at that time was due to the fact that the winter 1931-32 was one of the mildest on record. The result of the open winter was to raise the ground water table above what it would have been during a normal year which, to some degree, offset the summer deficiency.

The Susquehanna River is the largest stream that flows into the North Atlantic south of the St. Lawrence. It drains an extensive area which is lengthy and wide reaching. The numerous sub-basins that contribute to the river are of varied geological and topographical formations and what may be said of the Susquehanna River flow during the drought of 1930 may be true in a relative way of other large streams in Pennsylvania. There is a continuous daily record of flow for the Susquehanna River gaging station at Harrisburg from October 1, 1890, to September 30, 1932. From August, 1930, to March, 1931, the lowest monthly flows for each of the eight consecutive months during the 42-year period were observed.

The probability of a similar sequence of low-water months is remote and the period of low flow in the latter part of 1930 and early in 1931 may serve for many years to come as the low point in the curve of probability upon which future estimates will depend.

FLOOD WARNING

The destructive flood of March 1913 in Ohio brought back vivid recollections of the lives lost and damages wrought in the western and central parts of Pennsylvania during the June flood of 1889, and in May 1913 an act was passed by the General Assembly, authorizing the Water Supply Commission of Pennsylvania now a part of the Department of Forests and Waters, through the Administrative Code of 1923, to establish additional gaging stations and issue flood warnings.

This service has been rendered since the fall of 1913 and, although there have not been any great floods since the system was inaugurated. they are within the realm of physical possibility at any time.

Warnings have been issued to municipalities, corporations, and individuals many times, from 24 to 36 hours in advance of crest stages, during the last 20 years. Although there has not been any outstanding potential danger to life during this time, the property damage averted has many times exceeded the cost of this service.

PRECIPITATION

Forty-three rainfall stations are maintained by the Department of Forests and Waters. Prior to 1920 the Water Supply Commission of Pennsylvania published precipitation records in its annual reports. Since that time—with the exception of a few cases where stations are located in close proximity to others—these records may be found in the monthly and annual reports of the United States Weather Bureau. Records for stations not published by the United States Weather Bureau are available at the office of the Department of Forests and Waters.

The precipitation for each of the four years ending September 30, 1932, ranged from 4.35 to 9.10 inches below normal, as shown by the following table:

Precipitation on Pennsylvania for the four years Oct. 1, 1928, to Sept. 30, 1932.

Month		Precipitation in inches			
	45-year Average	1928-29	1929-30	1930-31	1931-32
October	3.19	1.78	5.59	0.99	1.83
November	2.82	2.32	3.39	1.48	1.52
December	3.16	1.16	2.77	2.29	2.85
January	3.24	3.37	2.25	1.46	4.51
February	2.92	2.87	2.69	1.98	1.64
March	3.45	2.69	3.03	2.96	4.41
April	3.40	6.12	2.71	3.33	1.71
May	3.93	4.81	3.03	5.28	3.69
June	4.13	3.56	4.20	3.71	3.15
July	4.29	2.81	2.23	5.28	3.39
August	4.13	2.52	1.47	4.01	2.82
September	3.41	3.71	2.45	3.15	1.45
The year	42.07	37.72	35.81	35.92	32.97

The preceding table presents another noteworthy condition in showing that the precipitation from July 1, 1930, to February 28, 1931, was only 0.77 inch above half the normal for the period, which was an unprecedented eight-months record of precipitation on Pennsylvania.

The lack of precipitation, in some sections of Pennsylvania in 1930, was the outstanding feature of the year. At the end of June there was an accumulated deficiency in precipitation of five inches on about one-fourth of the State. Elsewhere the deficiencies were comparatively small, while there was a slight excess in some of the northern counties. The dry regions comprised the southeastern and southcentral counties.

During the following four months that ended with October, 1930 and included a large part of the growing period, the deficiencies increased in the dry regions to fifteen inches and to ten inches on fully three-fourths of the State. The average deficiency for Pennsylvania during those four months was over eight inches or less than one-half the normal amount.

For the State as a whole the mean precipitation in 1930 was 28.8 inches as compared with a normal yearly of 42.2 inches, computed from a continuous record of 45 years. The deficiency in 1930 was equivalent to one-third of the usual amount with the nearest approaching condition in 1895 when it was one-fifth of the normal.

The following table shows the precipitation stations in Pennsylvania used in preparing the precipitation maps shown on pages 18-21. The table comprises the stations of the United States Weather Bureau, the Department of Forests and Waters, and those of private interests.

PRECIPITATION STATIONS IN PENNSYLVANIA

ATLANTIC DRAINAGE

STATION	COUNTY	DRAINAGE BASIN
Allentown	Lehigh	Lehigh
Altoona	Blair	Juniata
Ansonia	Tioga	West Branch of Susquehanna
Ardmore	Montgomery	Delaware
Arendtsville	Adams	Susquehanna
Bakers Summit	Bedford	Juniata
Bellefonte	Centre	West Branch of Susquehanna
Bear Gap	Northumberland	Susquehanna
Bethlehem	Northampton	Lehigh
Bloserville	Cumberland	Susquehanna
Brush Valley	Columbia	North Branch of Susquehanna
Campbell's Ledge	Lackawanna	North Branch of Susquehanna
Carbondale	Lycoming	North Branch of Susquehanna
Carlisle	Centre	Susquehanna
Catawissa	Delaware	North Branch of Susquehanna
Cedar Run	Franklin	West Branch of Susquehanna
Centre Hall	Clearfield	Susquehanna
Chadds Ford	Lackawanna	Delaware
Chambersburg	Cumberland	Potomac
Clearfield	Chester	West Branch of Susquehanna
Coatesville (a)	Columbia	Delaware

STATION	COUNTY	DRAINAGE BASIN
Coatesville (b)	Chester	Delaware
Colebrook	Lebanon	Susquehanna
Conshohocken	Montgomery	Schuylkill
Cresco (Snow Hill)	Monroe	Delaware
Cresson	Cambria	Juniata
Doylestown	Bucks	Delaware
Driftwood	Cameron	West Branch of Susquehanna
Dushore	Sullivan	West Branch of Susquehanna
Effort	Monroe	Delaware
Elizabethtown	Lancaster	Susquehanna
Elmhurst	Lackawanna	North Branch of Susquehanna
Emporium	Cameron	West Branch of Susquehanna
Ephrata	Lancaster	Susquehanna
Forest City	Susquehanna	North Branch of Susquehanna
Freeland	Luzerne	Lehigh
Galeton	Potter	West Branch of Susquehanna
George School	Bucks	Delaware
Gettysburg	Adams	Potomac
Girardville	Schuylkill	Susquehanna
Goldsboro	York	Susquehanna
Gordon	Schuylkill	Susquehanna
Gouldsboro	Wayne	Lehigh
Graters Ford	Montgomery	Schuylkill
Hamburg	Berks	Schuylkill
Hanover	York	Susquehanna
Harrisburg	Dauphin	Susquehanna
Harrisburg, East (b)	Dauphin	Susquehanna
Harrisburg, North (b)	Dauphin	Susquehanna
Hawley	Wayne	Delaware
Hollisterville	Wayne	Delaware
Holtwood	Lancaster	Susquehanna
Huntingdon	Huntingdon	Juniata
Huntsville Intake	Luzerne	Susquehanna
Hyndman	Bedford	Potomac
Kylertown	Clearfield	West Branch of Susquehanna
Lakeville	Wayne	Delaware
Lancaster	Lancaster	Susquehanna
Lansford	Carbon	Lehigh
Lawrenceville	Tioga	North Branch of Susquehanna
Lebanon	Lebanon	Susquehanna
Lewisburg	Union	West Branch of Susquehanna
Lloyd	Tioga	West Branch of Susquehanna
Lock Haven	Clinton	West Branch of Susquehanna
Loyalsock	Lycoming	West Branch of Susquehanna
Lykens	Dauphin	Susquehanna
Marcus Hook	Delaware	Delaware
Matamoras	Pike	Delaware
Mauch Chunk	Carbon	Lehigh
Mercersburg	Franklin	Potomac
Mifflintown	Juniata	Juniata
Montrose	Susquehanna	North Branch of Susquehanna
Morris Run	Tioga	North Branch of Susquehanna
Mount Carmel (Reservoir No. 6)	Northumberland	North Branch of Susquehanna
Mount Pocono	Monroe	Delaware
Mount Union	Huntingdon	Juniata
Muncy Valley	Sullivan	West Branch of Susquehanna
Narberth	Montgomery	Delaware
Neshaminy Falls	Bucks	Delaware
New Park	York	Susquehanna
Newport	Perry	Juniata
Palmerton	Carbon	Lehigh
Paupack	Pike	Delaware
Penbrook	Dauphin	Susquehanna
Philadelphia	Philadelphia	Delaware

STATION	COUNTY	DRAINAGE BASIN
Philadelphia, Germantown	Philadelphia	Delaware
Philadelphia, Navy Yard	Philadelphia	Delaware
Philadelphia, Pt. Breeze	Philadelphia	Delaware
Phoenixville	Chester	Schuylkill
Pike's Creek Intake	Luzerne	North Branch of Susquehanna
Pine Grove	Schuylkill	Susquehanna
Pleasant Mount	Wayne	Delaware
Pottstown	Montgomery	Schuylkill
Pottsville	Schuylkill	Schuylkill
Quakertown	Bucks	Delaware
Reading	Berks	Schuylkill
Renovo	Clinton	West Branch of Susquehanna
Saint Peters	Chester	Schuylkill
Scranton	Lackawanna	North Branch of Susquehanna
Selinsgrove	Snyder	Susquehanna
Shamokin	Northumberland	Susquehanna
Shawmont	Philadelphia	Schuylkill
Sinnemahoning	Cameron	West Branch of Susquehanna
Spring Brook Intake	Lackawanna	North Branch of Susquehanna
Spring Grove	York	Susquehanna
State College	Centre	West Branch of Susquehanna
Stroudsburg	Monroe	Delaware
Sunbury	Northumberland	Susquehanna
Tamaqua	Schuylkill	Schuylkill
Towanda	Bradford	North Branch of Susquehanna
Weikert	Union	Susquehanna
Wellsboro	Tioga	West Branch of Susquehanna
West Chester	Chester	Delaware
West Grove	Chester	Delaware
Wilkes-Barre (a)	Luzerne	North Branch of Susquehanna
Wilkes-Barre (c)	Luzerne	North Branch of Susquehanna
Williamsport (a)	Lycoming	West Branch of Susquehanna
Williamsport, Hagerman Run (b)	Lycoming	West Branch of Susquehanna
Williamsport, Mosquito Creek (b)	Lycoming	West Branch of Susquehanna
York	York	Susquehanna
York Haven	York	Susquehanna

OHIO DRAINAGE

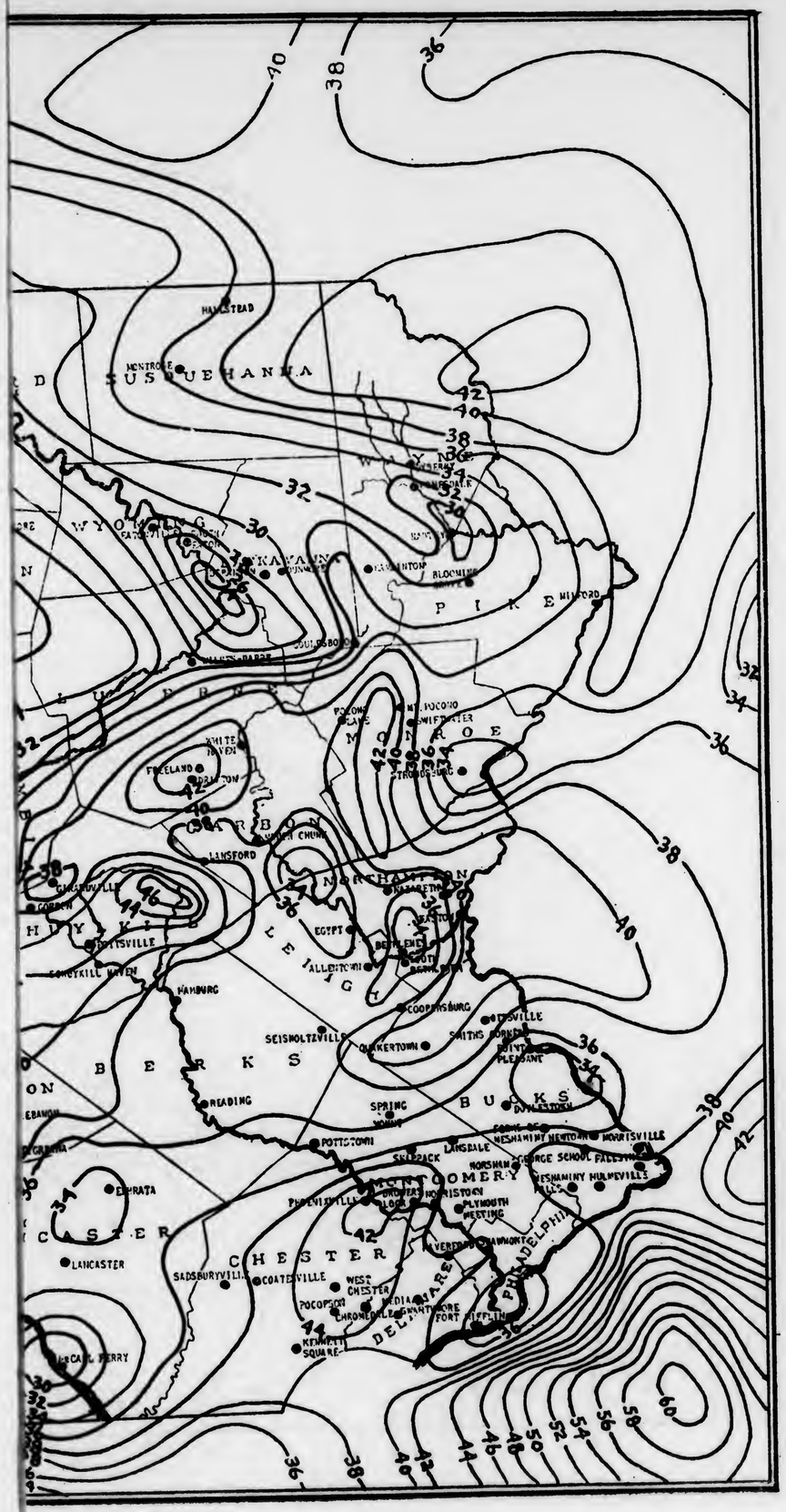
STATION	COUNTY	DRAINAGE BASIN
Beaver Dam	Beaver	Ohio
Beaver Falls	Beaver	Beaver
Boydstown Reservoir	Butler	Allegheny
Bradford (a)	McKean	Allegheny
Bradford (b)	McKean	Allegheny
Brookville	Jefferson	Allegheny
Butler	Butler	Beaver
Chambersville	Indiana	Allegheny
Clairton	Allegheny	Monongahela
Claysville	Washington	Ohio
Cloe	Jefferson	Allegheny
Clymer	Indiana	Kiskiminitas
Confluence	Somerset	Youghiogheny
Connellsville	Fayette	Youghiogheny
Coraopolis	Allegheny	Ohio
Corry	Erie	Allegheny
Coudersport	Potter	Allegheny
Creekside	Indiana	Allegheny
Dalton Run	Somerset	Kiskiminitas
Derry	Westmoreland	Kiskiminitas
Donora	Washington	Monongahela
Ebensburg	Cambria	Kiskiminitas
Elk Lick	Somerset	Youghiogheny

STATION	COUNTY	DRAINAGE BASIN
Falls Creek	Clearfield	Allegheny
Franklin	Venango	Allegheny
Freeport	Armstrong	Allegheny
Greensboro	Green	Monongahela
Greensburg	Westmoreland	Youghiogheny
Greenville	Mercer	Beaver
Grove City	Mercer	Beaver
Herrs Island Dam	Allegheny	Allegheny
Hinckston Run	Cambria	Kiskiminitas
Ingram	Allegheny	Ohio
Irwin	Westmoreland	Youghiogheny
Johnstown	Cambria	Kiskiminitas
Ketner	Elk	Allegheny
Kregar	Westmoreland	Youghiogheny
Lake Lynn	Fayette	Monongahela
Latrobe	Westmoreland	Kiskiminitas
Laurel Run	Cambria	Kiskiminitas
Linesville	Crawford	Beaver
Lock No. 2 (Neville)	Allegheny	Ohio
Lock No. 4	Washington	Monongahela
Luxor	Westmoreland	Kiskiminitas
Lycippus	Westmoreland	Kiskiminitas
McKeesport	Allegheny	Monongahela
Meadville	Crawford	Allegheny
Mill Creek	Cambria	Kiskiminitas
Mount Lebanon	Allegheny	Ohio
Natrona	Allegheny	Allegheny
New Castle	Lawrence	Beaver
Newell	Fayette	Monongahela
North Fork	Somerset	Kiskiminitas
Parkers Landing	Armstrong	Allegheny
Pennline	Crawford	Beaver
Pittsburg	Allegheny	Ohio
Punxsutawney	Jefferson	Allegheny
Pymatuning Dam	Crawford	Beaver
Quemahoning	Somerset	Kiskiminitas
Ridgway (a)	Elk	Allegheny
Ridgway (b)	Elk	Allegheny
Saltlick	Cambria	Kiskiminitas
Saltsburg	Indiana	Kiskiminitas
Sharon	Mercer	Beaver
Smethport	McKean	Allegheny
Somerset	Somerset	Youghiogheny
Springdale	Allegheny	Allegheny
Thorn Run Reservoir	Butler	Allegheny
Titusville	Crawford	Allegheny
Uniontown	Fayette	Monongahela
Unity Reservoir	Westmoreland	Youghiogheny
Vandergrift	Westmoreland	Kiskiminitas
Warren	Warren	Allegheny
Waynesburg	Greene	Monongahela
Westford	Crawford	Beaver
West Newton	Westmoreland	Youghiogheny
Zelienople	Butler	Beaver

LAKE DRAINAGE

Erie	Erie	Lake Erie
Genesee	Erie	Lake Erie

(a) United States Weather Bureau.
(b) Department of Forest and Waters, Water Resources Service.
(c) Spring Brook Water Supply.
(d) Associated Gas and Electric.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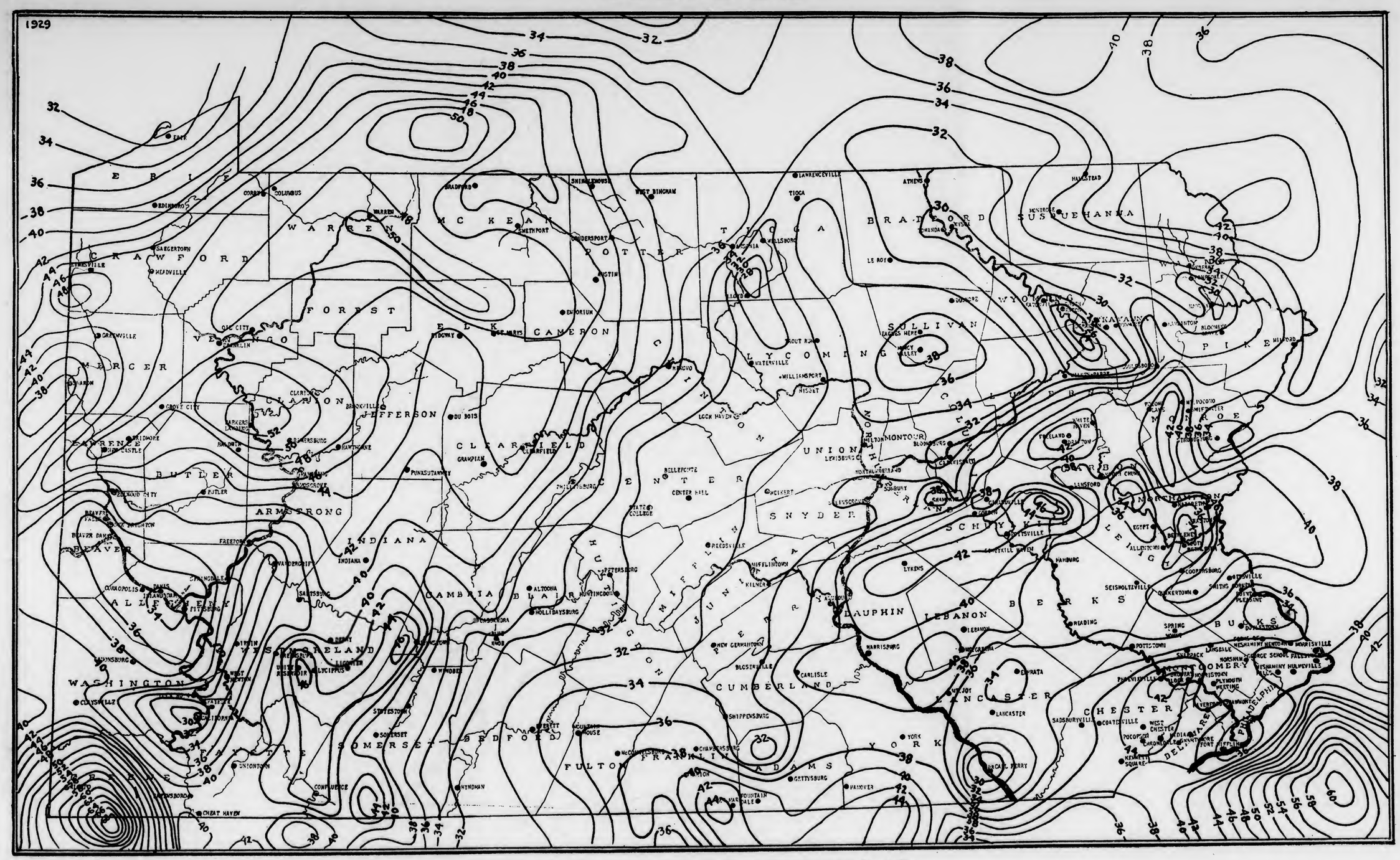
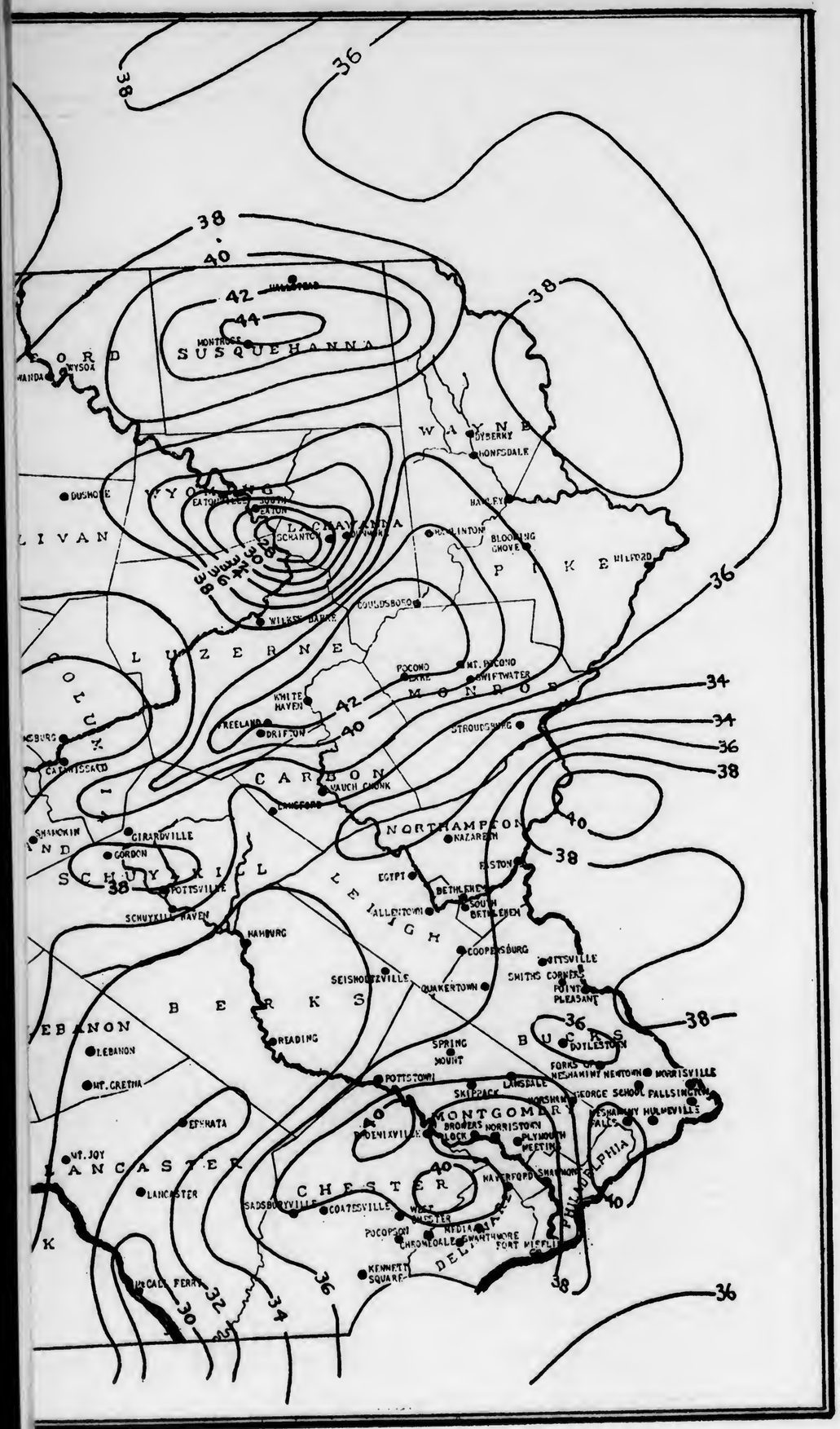


Map showing precipitation for the year ending September 30, 1929.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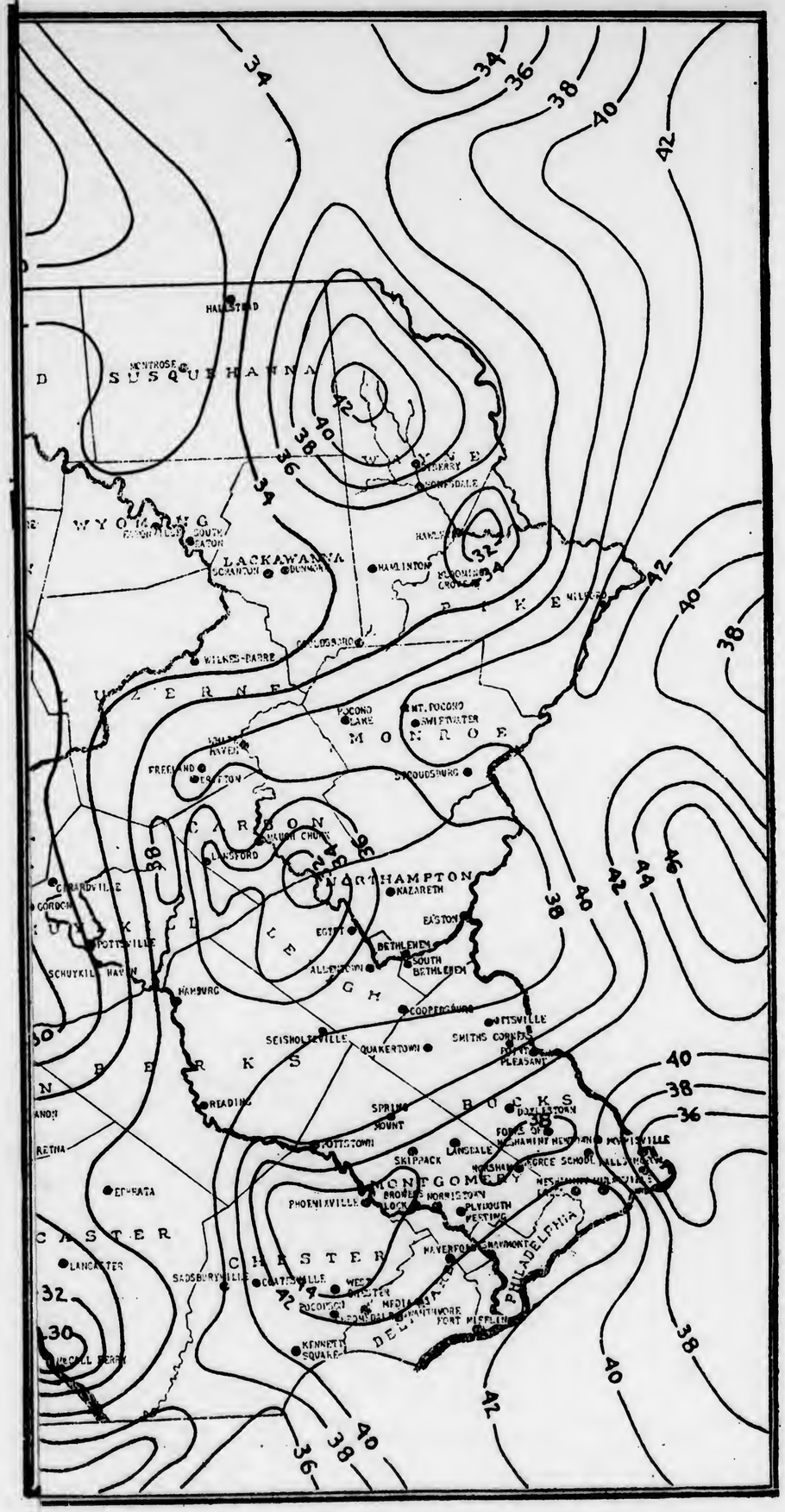
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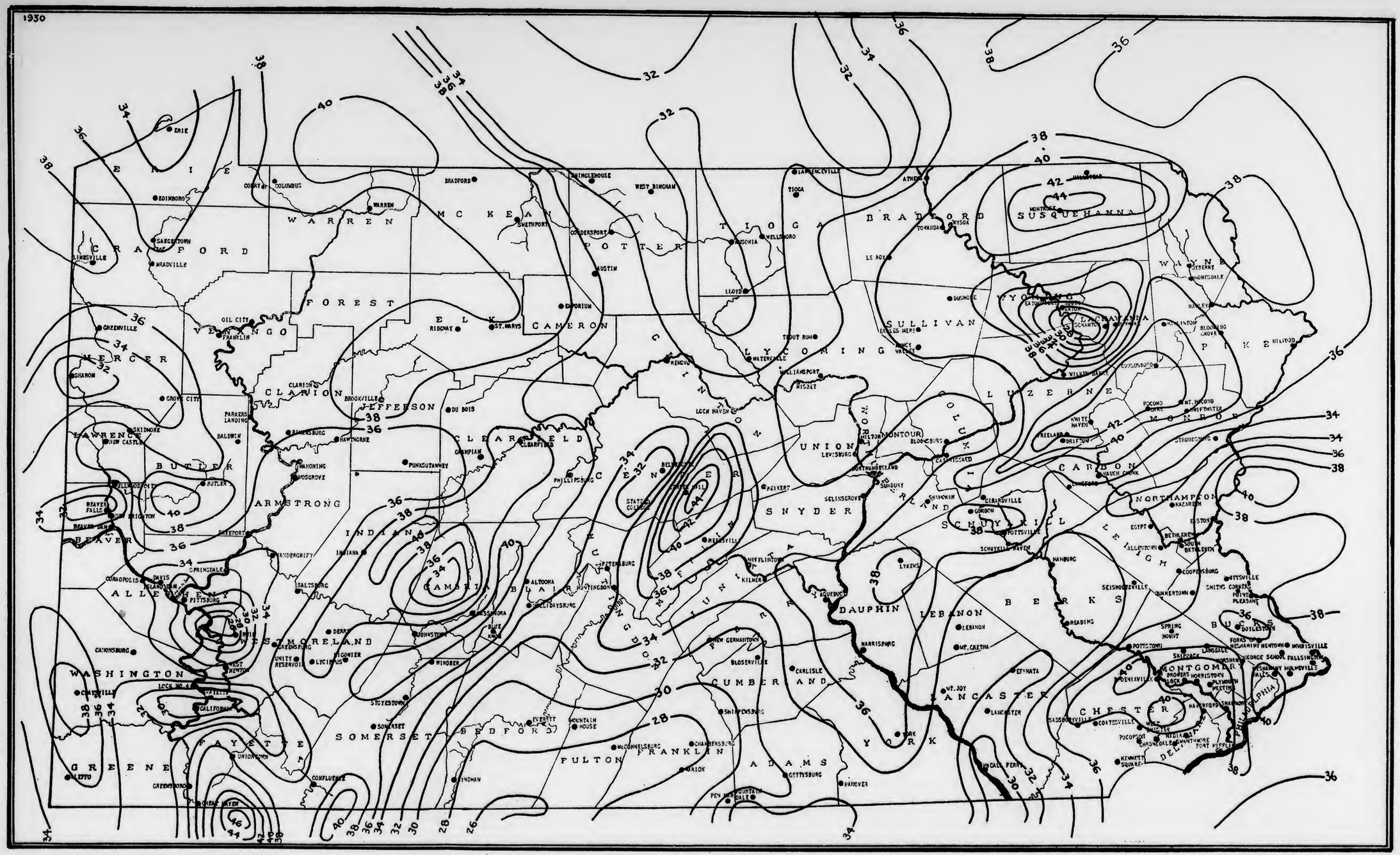
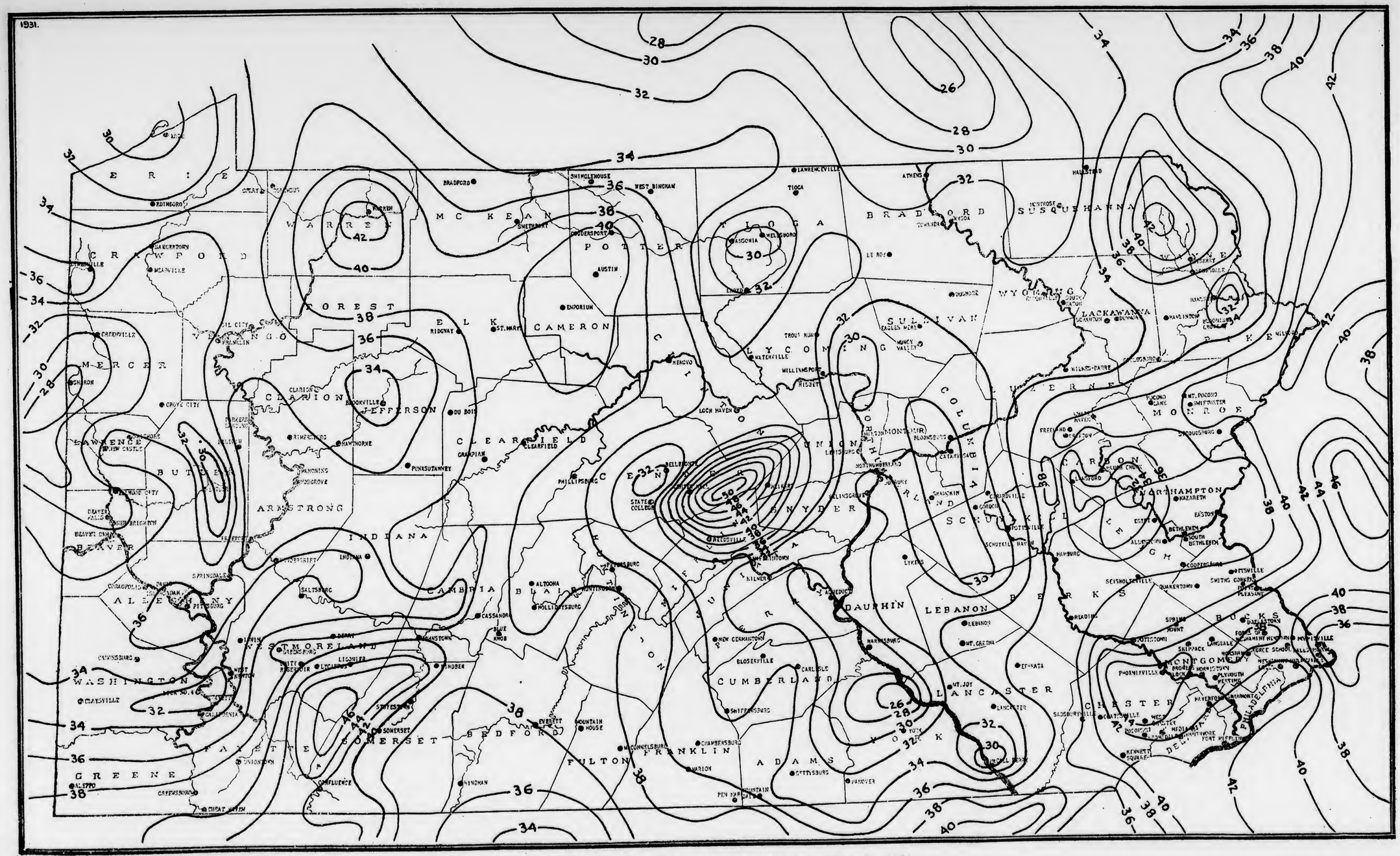
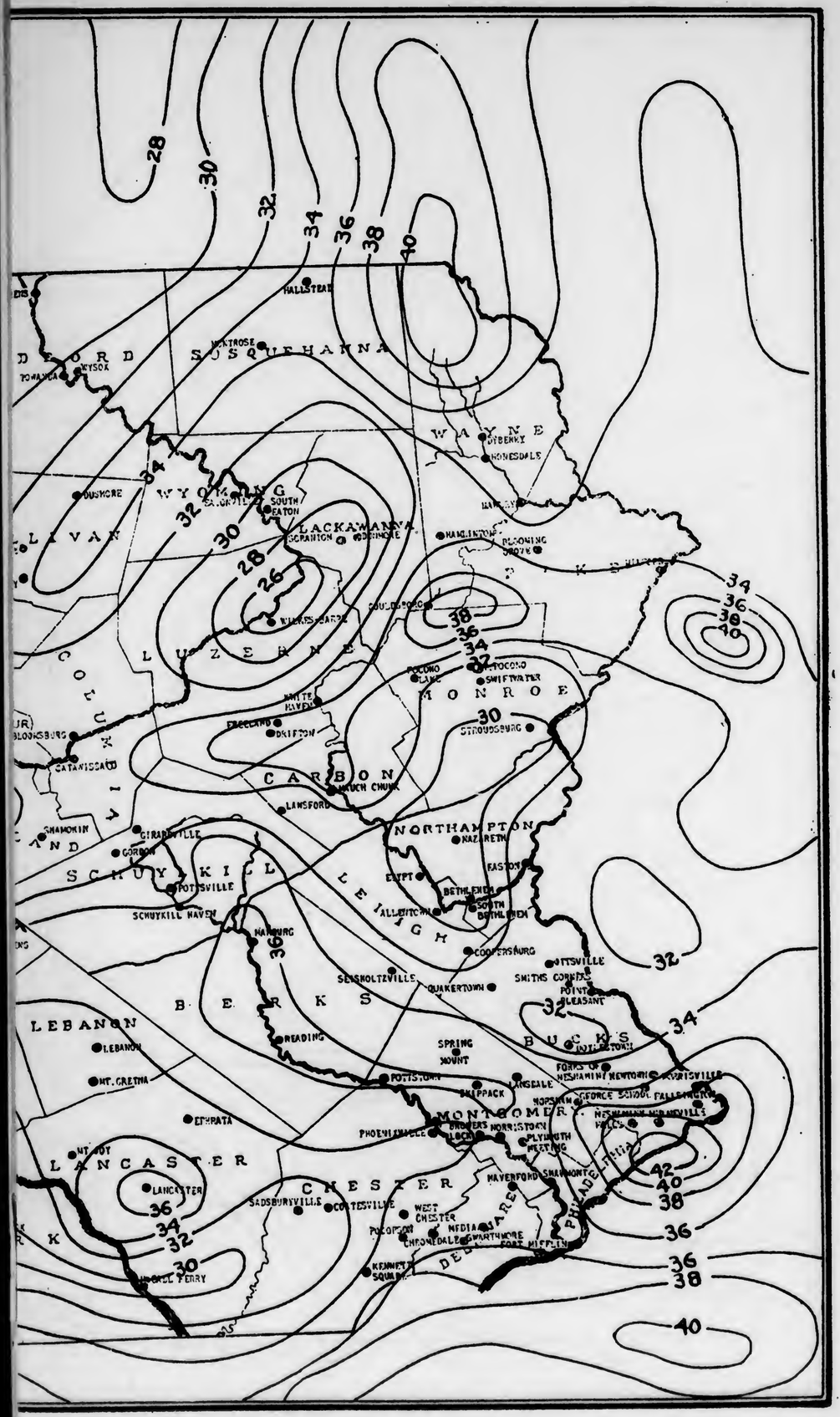
DEPARTMENT OF FORESTS AND WATERS
WATER RESOURCES SERVICE



Map showing precipitation for the year ending September 30, 1930.



Map showing precipitation for the year ending September 30, 1931.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SUSQUEHANNA
WAYNE
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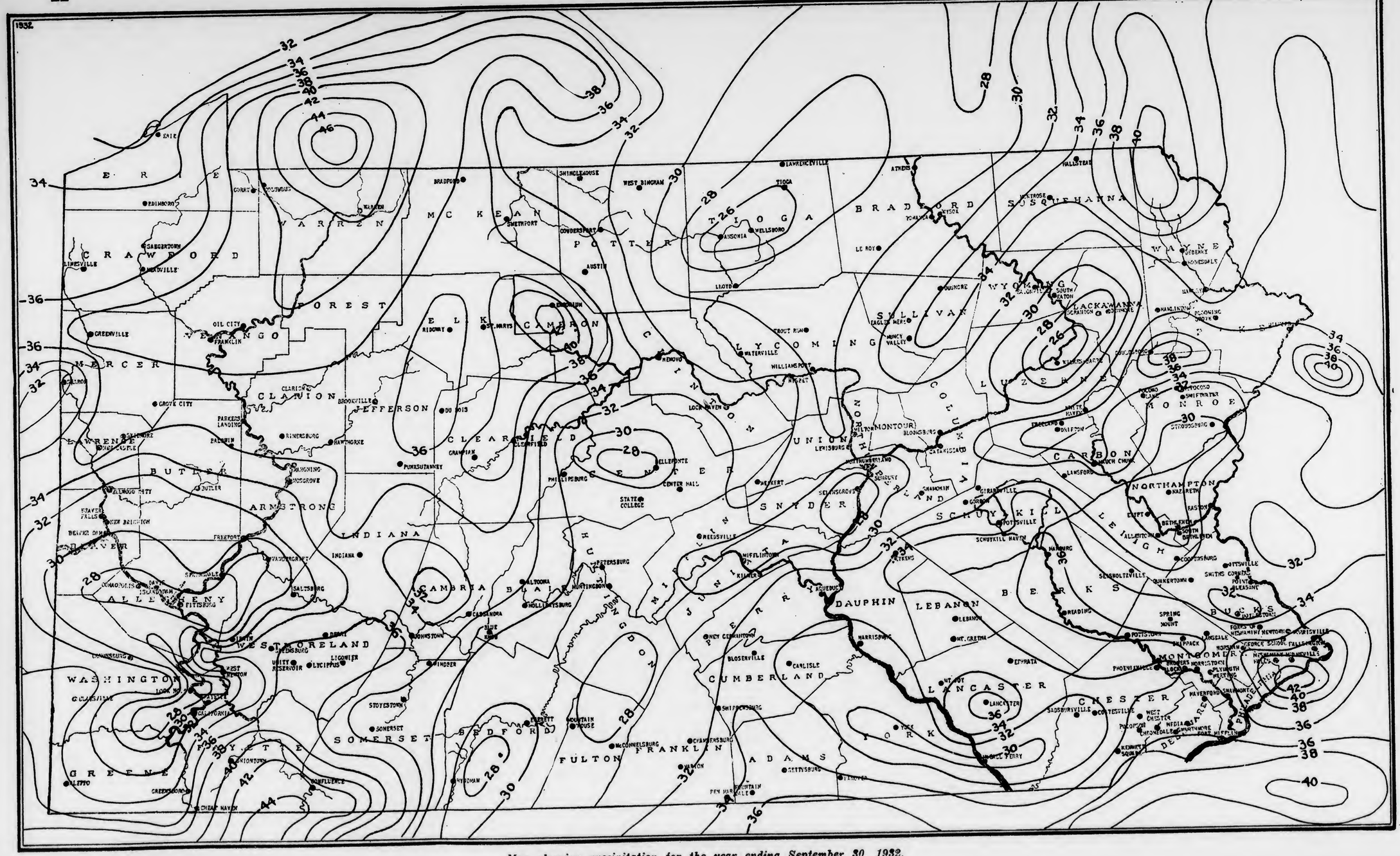
LACKAWANNA
COLUMBIA
MONROE
CARBON
NORTHAMPTON
SCHUYKILL
LEHIGH
BERKS
BUCKS
MONTGOMERY
LEBANON
LANCASTER
CHESTER
DELAWARE
PHILADELPHIA
MONTROSE
HALLSTEAD
TUNKHANNOCK
FACTORYVILLE
SOUTH EATON
SCRANTON
HAMLIN
HONESDALE
BLOOMSBURG
CATAWISSA
BERWICK
NESCOPECK
WILKES-BARRE
PITTSTON
WHITE HAVEN
JIM THORPE
STROUDSBURG
EAST STROUDSBURG
MAUCH CHUNK
LANSFORD
NAZARETH
EASTON
BETHLEHEM
SOUTH BETHLEHEM
ALLENTOWN
COOPERSBURG
SCHUYLKILL HAVEN
POTTSVILLE
GIRARDVILLE
SHAMOKIN
GORDON
NAMBURG
SELINSGROVE
QUAKERTOWN
READING
LEBANON
MT. GRETNA
EPHRATA
LANCASTER
MT. JOY
COATESVILLE
WEST CHESTER
MEDIA
CHADDS FORD
NORRISTOWN
POTTSTOWN
SPRING MOUNT
SKIPPACK
LANSDALE
PHOENIXVILLE
BRIDGEPORT
LOCH
PLYMOUTH MEETING
HAVERFORD
SWARTHMORE
FORT MIFFLIN
SMITHS CORNER
POINT PLEASANT
DOYLESTOWN
NEWTOWN
LEVITTOWN
TRENTON

DEPARTMENT OF FORESTS AND WATERS
WATER RESOURCES SERVICE



Map showing precipitation for the year ending September 30, 1932.

STREAM FLOW RECORDS

DEFINITIONS OF TERMS

The volume of water flowing in a stream—the "run-off" or "discharge"—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, and discharge in second-feet per square mile, and (2) those that represent the actual quantity of water, as run-off depth in inches, acre-feet and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, and run-off in inches. They may be defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed by the use of the factors.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in depth in inches.

An "acre-foot" is equivalent to 43,560 cubic feet and is the quantity required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage and irrigation.

The following terms not in common use are here defined:

"Stage-discharge relations," an abbreviation for the term "relation of gage height to discharge."

"Control," a term used to designate the section or sections of the stream below the gage which determine the stage-discharge relation at the gage. It should be noted that the control may not be the same at all stages.

The "point of zero flow" for a gaging station is that point on the gage—the gage height—to which the surface of the river falls when the discharge is reduced to zero.

CONVERSION TABLES

The following tables afford a ready means of conversion between the terms in common use in hydraulic computations.

Discharge in second-feet per square mile into run-off in depth in inches

Discharge (Second-feet per square mile)	Run-off (depth in inches)				
	1 day	28 days	29 days	30 days	31 days
1	0.03719	1.041	1.079	1.116	1.153
2	.07438	2.083	2.157	2.231	2.306
3	.11157	3.124	3.236	3.347	3.459
4	.14876	4.165	4.314	4.463	4.612
5	.18595	5.207	5.393	5.578	5.764
6	.22314	6.248	6.471	6.694	6.917
7	.26033	7.289	7.550	7.810	8.070
8	.29752	8.331	8.628	8.926	9.223
9	.33471	9.372	9.707	10.041	10.376

Note—For part of a month multiply the run-off for 1 day by the number of days.

Discharge in second-feet into run-off in acre-feet.

Discharge (second-feet)	Run-off (acre-feet)				
	1 day	28 days	29 days	30 days	31 days
1	1.983	55.54	57.52	59.50	61.49
2	3.967	111.1	115.0	119.0	123.0
3	5.950	166.6	172.6	178.5	184.5
4	7.934	222.1	230.1	238.0	246.0
5	9.917	277.7	287.6	297.5	307.4
6	11.90	333.2	345.1	357.0	368.9
7	13.88	388.8	402.6	416.5	430.4
8	15.87	444.3	460.2	476.0	491.9
9	17.85	499.8	517.7	535.5	553.4

Note—For part of a month multiply the run-off for 1 day by the number of days.

Discharge in second-feet into run-off in millions of cubic feet.

Discharge (second-feet)	Run-off (millions of cubic feet)				
	1 day	28 days	29 days	30 days	31 days
1	0.0864	2.419	2.506	2.592	2.678
2	.1728	4.838	5.012	5.184	5.356
3	.2592	7.257	7.518	7.776	8.034
4	.3456	9.676	10.02	10.37	10.71
5	.4320	12.10	12.53	12.96	13.39
6	.5184	14.51	15.04	15.55	16.07
7	.6048	16.93	17.54	18.14	18.75
8	.6912	19.35	20.06	20.74	21.42
9	.7776	21.77	22.55	23.33	24.10

Note—For part of a month multiply the run-off for 1 day by the number of days.

Discharge in second-feet into run-off in millions of gallons.

Discharge (second-feet)	Run-off (millions of gallons)				
	1 day	28 days	29 days	30 days	31 days
1	0.6463	18.10	18.74	19.39	20.04
2	1.293	36.20	37.48	38.78	40.08
3	1.939	54.30	56.22	58.17	60.12
4	2.585	72.40	74.96	77.56	80.16
5	3.232	90.50	93.70	96.95	100.2
6	3.878	108.6	112.4	116.3	120.2
7	4.524	126.7	131.2	135.7	140.3
8	5.170	144.8	149.9	155.1	160.3
9	5.817	162.9	168.7	174.5	180.4

Note—For part of a month multiply the run-off for 1 day by the number of days.

Velocity in feet per second into velocity in miles per hour.

(1 foot per second=0.681818 mile per hour, or very nearly two-thirds mile per hour; 1 mile per hour=1.46666 feet per second. In computing the table the values 0.68182 and 1.4667 were used).

Feet per second (units)	Miles per hour for tenths of foot per second									
	0	1	2	3	4	5	6	7	8	9
0	0.000	0.068	0.136	0.205	0.273	0.341	0.409	0.477	0.545	0.614
1	.682	.750	.818	.886	.995	1.02	1.09	1.16	1.23	1.30
2	1.36	1.43	1.50	1.57	1.64	1.70	1.77	1.84	1.91	1.98
3	2.05	2.11	2.18	2.25	2.32	2.39	2.45	2.52	2.59	2.66
4	2.73	2.80	2.86	2.93	3.00	3.07	3.14	3.20	3.27	3.34
5	3.41	3.43	3.55	3.61	3.68	3.75	3.82	3.89	3.95	4.02
6	4.09	4.16	4.23	4.30	4.36	4.43	4.50	4.57	4.64	4.70
7	4.77	4.84	4.91	4.98	5.05	5.11	5.18	5.25	5.32	5.39
8	5.45	5.52	5.59	5.66	5.73	5.80	5.86	5.93	6.00	6.07
9	6.14	6.20	6.27	6.34	6.41	6.48	6.55	6.61	6.68	6.75

CONVENIENT EQUIVALENTS.

LENGTH

1 inch=1/12 foot=0.027778 yard=0.000015783 mile=2.54 centimeters.
1 foot=12 inches=1/3 yard=0.00018939 mile=0.3048 meter.
1 yard=36 inches=3 feet=0.00056818 mile=0.9144 meter.
1 mile=63,360 inches=5,280 feet=1,760 yards=1.60935 kilometers.
1 meter=100 centimeters=0.001 kilometer=39.37 inches=3.2808 feet=1.0936 yards=0.00062137 mile.

SURFACE

1 square inch=0.006944 square foot=0.0007716 square yard=0.0000001594 acre=0.0000000002491 square mile=6.45163 square centimeters.
1 square foot=144 square inches=1/9 square yard=0.000022957 acre=0.00000003587 square mile=0.092903 square meter.
1 square yard=1,296 square inches=9 square feet=0.0002066 acre=0.0000003228 square mile =0.83613 square meter.
1 acre=6,272,640 square inches=43,560 square feet=4,840 square yards=0.0015625 square mile=208.71 feet square=0.404687 hectare.
1 square mile=4,014,489,600 square inches=27,878,400 square feet=3,097,600 square yards= 640 acres=259 hectares.
1 square meter=10,000 square centimeters=0.0001 hectare=0.000001 square kilometer=1,550 square inches=10.7639 square feet=1.19598 square yards=0.0002471 acre=0.0000003861 square mile.

VOLUME

1 cubic inch=0.004329 United States gallon=0.0005787 cubic foot=16.3872 cubic centimeters.
1 United States gallon=231 cubic inches=0.13368 cubic foot=0.00000307 acre foot=3.78543 liters.
1 cubic foot=1,728 cubic inches=7.4805 United States gallons=0.037037 cubic yards=0.000022957 acre-foot=28.317 liters.
1 cubic yard=46,656 cubic inches=27 cubic feet=0.00061983 acre-foot=0.76456 cubic meter.
1 acre foot=325,851 United States gallons=43,560 cubic feet=1,613 1/3 cubic yards=1,233.49 cubic meters.
1 cubic meter, stere, or kiloliter=1,000,000 cubic centimeters=1,000 liters=61.025.4 cubic inches=264.17 United States gallons=35.3145 cubic feet=1.30794 cubic yards= 0.000810708 acre-foot.

HYDRAULICS

1 United States gallon of water weighs 8.34 pounds avoirdupois.
1 cubic foot of water weighs 62.5 pounds avoirdupois.
1 second-foot=7.48 United States gallons per second=448.8 United States gallons per minute =26,929.9 United States gallons per hour=646,317 United States gallons per day.
1 second-foot=60 cubic feet per minute=3,600 cubic feet per hour=86,400 cubic feet per day=31,536,000 cubic feet per year=0.000214 cubic miles per year.
1 second-foot=0.9917 acre-inch per hour=1.983471 acre-feet per day=723.966942 acre-feet per year.
1 second-foot=0.028317 cubic meter per second=1.699 cubic meters per minute=101.941 cubic meters per hour=2,446.58 cubic meters per day.
1 second-foot for 1 year (365 days) will cover 1 square mile 1.1312 feet or 13.5744 inches deep.
1 second-foot falling 10 feet=1.135 horsepower.
100 United States gallons per minute=0.223 second-foot=0.442 acre-foot in one day.
1 million gallons per day=1.55 second-feet=3.07 acre-feet per day=2.629 cubic meters per minute.
1 million gallons per month=0.05525 second-feet for one 28-day month=0.05334 second-foot for one 29-day month=0.05157 second-foot for one 30-day month=0.04990 second-foot for one 31-day month.
1,000,000,000 (1 United States billion) cubic feet=11,570 second-feet for one day=413 second-feet for one 28-day month=399 second-feet for one 29-day month=386 second-feet for one 30-day month=373 second-feet for one 31-day month.
1 horsepower=1 second-foot falling 8.8 feet.
1 horsepower=1 second-foot falling 11.0 feet, 80 percent efficiency.
1 horsepower=5,694,120 foot-gallons per day=550 foot-pounds per second=33,000 foot-pounds per minute=1,980,000 foot-pounds per hour=2,545 British thermal units per hour= 76 kilogrammeters per second=1.27 kilogrammeters per minute=746 watts.
1.3405 horsepower=1 kilowatt.
1 inch deep on 1 square mile=2,323,200 cubic feet=0.0737 second-foot for 1 year.
1 foot deep (head of 1 foot)=0.434 pound pressure on 1 square inch.
1 cubic meter per minute=0.5886 second-foot=4.403 United States gallons per second=1.1674 acre-feet per day.
1 foot per second=0.68 mile per hour=1.097 kilometers per hour.
Acceleration of gravity, g=32.16 feet per second.

EXPLANATION OF DATA

The data presented in this report covers the four-year period October 1, 1928, to September 30, 1932. At the first of January in most parts of the United States much of the precipitation in the preceding three months is stored as ground water, in the form of snow or ice, or in ponds, lakes, and swamps, and this stored water passes off in the streams during the spring break-up; at the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for a year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging station consists of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurement in determining the daily flow. The records of stage are obtained from direct readings on a chain or staff gage for stations where automatic water stage recorders have not been installed, while they are computed from the automatic gage graphs for stations that have been equipped with recorders. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge.

From the discharge measurements, rating tables are prepared that give the discharge for any stage. The application of the daily mean gage heights to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

STREAM FLOW RECORDS

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8	.29752	8.331	8.628	8.926	9.223
9	.33471	9.372	9.707	10.041	10.376

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8	.6912	19.35	20.05	20.74	21.42
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Discharge in second-feet into run-off in millions of gallons.

Discharge (second-feet)	Run-off (millions of gallons)				
	1 day	28 days	29 days	30 days	31 days
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4	2.585	72.40	74.96	77.56	80.16
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3	2.05	2.11	2.18	2.25	2.32	2.39	2.45	2.52	2.59	2.66
4	2.73	2.80	2.86	2.93	3.00	3.07	3.14	3.20	3.27	3.34
5	3.41	3.43	3.55	3.61	3.68	3.75	3.82	3.89	3.95	4.02
6	4.09	4.16	4.23	4.30	4.36	4.43	4.50	4.57	4.64	4.70
7	4.77	4.84	4.91	4.98	5.05	5.11	5.18	5.25	5.32	5.39
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1 second-foot=7.48 United States gallons per second=448.8 United States gallons per minute =26,929.9 United States gallons per hour=646,317 United States gallons per day.
1 second-foot=60 cubic feet per minute=3,600 cubic feet per hour=86,400 cubic feet per day=31,536,000 cubic feet per year=0.000214 cubic miles per year.
1 second-foot=0.9917 acre-inch per hour=1.983471 acre-feet per day=723.966942 acre-feet per year.
1 second-foot=0.028317 cubic meter per second=1.699 cubic meters per minute=101.941 cubic meters per hour=2,446.58 cubic meters per day.
1 second-foot for 1 year (365 days) will cover 1 square mile 1.1312 feet or 13.5744 inches deep.
1 second-foot falling 10 feet=1.135 horsepower.
100 United States gallons per minute=0.223 second-foot=0.442 acre-foot in one day.
1 million gallons per day=1.55 second-feet=3.07 acre-feet per day=2.629 cubic meters per minute.
1 million gallons per month=0.05525 second-feet for one 28-day month=0.05334 second-foot for one 29-day month=0.05157 second-foot for one 30-day month=0.04990 second-foot for one 31-day month.
1,000,000,000 (1 United States billion) cubic feet=11,570 second-feet for one day=413 second-feet for one 28-day month=399 second-feet for one 29-day month=386 second-feet for one 30-day month=373 second-feet for one 31-day month.
1 horsepower=1 second-foot falling 8.8 feet.
1 horsepower=1 second-foot falling 11.0 feet, 80 percent efficiency.
1 horsepower=5,694,120 foot-gallons per day=550 foot-pounds per second=33,000 foot-pounds per minute=1,980,000 foot-pounds per hour=2,545 British thermal units per hour= 76 kilogrammeters per second=1.27 kilogrammeters per minute=746 watts.
1.3405 horsepower=1 kilowatt.
1 inch deep on 1 square mile=2,323,200 cubic feet=0.0737 second-foot for 1 year.
1 foot deep (head of 1 foot)=0.434 pound pressure on 1 square inch.
1 cubic meter per minute=0.5886 second-foot=4.403 United States gallons per second=1.1674 acre-feet per day.
1 foot per second=0.68 mile per hour=1.097 kilometers per hour.
Acceleration of gravity, g=32.16 feet per second.

EXPLANATION OF DATA

The data presented in this report covers the four-year period October 1, 1928, to September 30, 1932. At the first of January in most parts of the United States much of the precipitation in the preceding three months is stored as ground water, in the form of snow or ice, or in ponds, lakes, and swamps, and this stored water passes off in the streams during the spring break-up; at the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for a year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging station consists of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurement in determining the daily flow. The records of stage are obtained from direct readings on a chain or staff gage for stations where automatic water stage recorders have not been installed, while they are computed from the automatic gage graphs for stations that have been equipped with recorders. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge.

From the discharge measurements, rating tables are prepared that give the discharge for any stage. The application of the daily mean gage heights to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station comprises a description of a station, a table showing the daily discharge, and a table of monthly and yearly discharge and run-off.

Where the base data are insufficient to determine the daily discharge, tables giving daily mean gage heights and results of discharge measurements are published.

The description of the station gives, in addition to statements regarding location and equipment, information in regard to any conditions that may affect the permanence of the stage-discharge relation, covering such subjects as the occurrence of ice, shifting of control, and the cause and effect of backwater. It gives also information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the mean of the gage heights read each day. At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the daily mean gage heights may not be the true mean discharge for the day.

In the table of monthly discharge the column headed "Maximum" gives the mean flow for the day when the mean gage height was highest. As the gage height is the mean for the day it does not indicate correctly the stage when the water surface was at crest height, and the corresponding discharge was consequently larger than that given in the maximum column. Likewise, in the column headed "minimum," the quantity given is the mean flow for the day when the mean gage height was lowest. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow, computations recorded in the remaining columns are based.

ACCURACY OF FIELD DATA AND COMPUTED RECORDS

The accuracy of stream-flow data depends primarily (1) on the permanence of the stage-discharge relation and (2) on the accuracy of observation of stage, measurement of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that records are accurate within 5 per cent; "good" within 10 per cent; "fair," within 15 per cent; and "poor," within 20 per cent or more.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and depth of run-off in inches

may be subject to some error caused by the inclusion of non-contributing districts in the measured drainage area, or by inability to interpret the effect of artificial regulation of the flow of the river above the station.

The table of monthly discharge gives only a general idea of the flow at the station. The table of daily discharge allow more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published.

The Commonwealth of Pennsylvania is divided into three main drainage basins; the Delaware, Susquehanna and Ohio. The hydrographic data in the following pages are divided into three groups, corresponding to these three basins. The stations in each basin are shown in the following tables and their location is indicated on the map with reference number corresponding to those given in the tables.

Gaging Stations in Delaware Basin*

Station No.	Stream	Location
1	Delaware River	Port Jervis, N. Y.
2	Delaware River	Belvidere, N. J.
3	Delaware River	Riegelsville
4	Delaware River	Trenton, N. J.
5	Lackawaxen River	West Hawley
6	Wallenpaupack Creek	Wilsonville
7	Shohola Creek	Shohola
8	Bushkill Creek	Shoemakers
9	McMichaels Creek	Stroudsburg
10	Lehigh River	Tannery
11	Lehigh River	Bethlehem
12	Little Lehigh Creek	Allentown
13	Neshaminy Creek	Rushland
14	Schuylkill River	Reading
15	Schuylkill River	Pottstown
16	Schuylkill River	Norristown
17	Schuylkill River	Philadelphia
18	Little Schuylkill River	Tamaqua
19	French Creek	Saint Peters
20	Perkiomen Creek	Grater Ford
21	Crum Creek	Woodlyn
22	Ridley Creek	Moylan
23	Chester Creek	Chester
24	White Clay Creek	Newark, Del.
25	Mill Creek	Stanton, Del.
26	Brandywine Creek	Chadds Ford
27	Leipsic River	Cheswold, Del.
28	Murderkill River	Felton, Del.

*For information available on each station, see description of station.

*Gaging Stations in Susquehanna Basin**

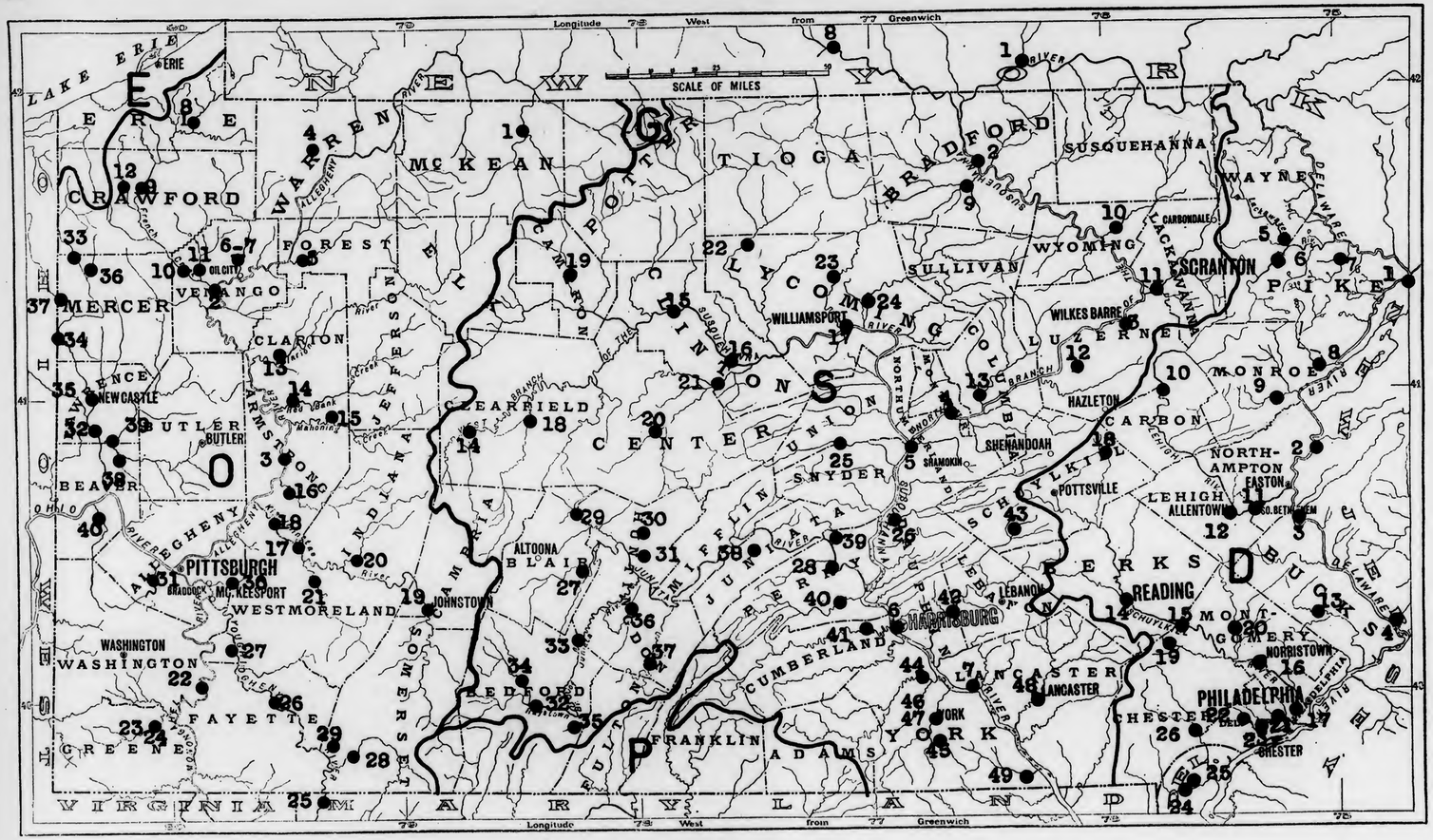
Station No.	Stream	Location
1	North Branch of Susquehanna River	Binghamton, N. Y.
2	North Branch of Susquehanna River	Towanda
3	North Branch of Susquehanna River	Wilkes-Barre
4	North Branch of Susquehanna River	Danville
5	Susquehanna River	Sunbury
6	Susquehanna River	Harrisburg
7	Susquehanna River	Marietta
8	Chemung River	Corning, N. Y.
9	Towanda Creek	Monroeton
10	Tunkhannock Creek	Dixon
11	Lackawanna River	Moosic
12	Wapwallopen Creek	Wapwallopen
13	Fishing Creek	Bloomsburg
14	West Branch of Susquehanna River	Bower
15	West Branch of Susquehanna River	Renovo
16	West Branch of Susquehanna River	Lock Haven
17	West Branch of Susquehanna River	Williamsport
18	Clearfield Creek	Dimeling
19	Driftwood Branch of Sinnemahoning Creek	Sterling Run
20	North Bald Eagle Creek	Milesburg
21	North Bald Eagle Creek	Beech Creek Station
22	Pine Creek	Cedar Run
23	Lycoming Creek	Trout Run
24	Loyalsock Creek	Loyalsock
25	Penn Creek	Penns Creek
26	Mahantango Creek East	Dalmatia
27	Frankstown Branch of Juniata River	Williamsburg
28	Juniata River	Newport
29	Little Juniata River	Tyrone
30	Shaver Creek	Petersburg
31	Standing Stone Creek	Huntingdon
32	Raystown Branch of Juniata River	Cliffs
33	Raystown Branch of Juniata River	Saxton
34	Dunning Creek	Yount
35	Brush Creek	Gapsville
36	Great Trough Creek	Marklesburg
37	Aughwick Creek	Orbisonia
38	Tuscarora Creek	Port Royal
39	Cocolamus Creek	Millerstown
40	Sherman Creek	Shermandale
41	Conodoguinet Creek	Hogestown
42	Swatara Creek	Harper Tavern
43	Upper Little Swatara Creek	Pine Grove
44	West Conewago Creek	Manchester
45	Codorus Creek	Spring Grove
46	Codorus Creek	York
47	South Branch of Codorus Creek	York
48	Conestoga Creek	Lancaster
49	Muddy Creek	Castle Fin

*For information available on each station, see description of station.

*Gaging Stations in Ohio Basin**

Station No.	Stream	Location
1	Allegheny River	Larabee
2	Allegheny River	Franklin
3	Allegheny River	Kittanning
4	Brokenstraw Creek	Youngsville
5	Tionesta Creek	Nebraska
6	Oil Creek	(at) Rouseville
7	Oil Creek	(near) Rouseville
8	French Creek	Kimmeytown
9	French Creek	Saegertown
10	French Creek	Utica
11	Sugar Creek	Sugarcreek
12	Cussewago Creek	Meadville
13	Clarion River	Piney
14	Redbank Creek	Dayton
15	Mahoning Creek	Saint Charles
16	Crooked Creek	Ford City
17	Kiskiminitas River	Avonmore
18	Kiskiminitas River	Vandergrift
19	Stony Creek	Johnstown
20	Blacklick Creek	Blacklick
21	Loyalhanna Creek	New Alexandria
22	Monongahela River	South Brownsville
23	South Fork of Tenmile Creek	Jefferson
24	South Fork of Tenmile Creek	Pollock's Mill
25	Youghiogheny River	Friendsville, Md.
26	Youghiogheny River	Connellsville
27	Youghiogheny River	Sutersville
28	Casselman River	Markleton
29	Laurel Hill Creek	Ursina
30	Turtle Creek	Trafford
31	Chartiers Creek	Carnegie
32	Beaver River	Wampum
33	Shenango River	Jamestown
34	Shenango River	Sharon
35	Shenango River	New Castle
36	Little Shenango River	Greenville
37	Pymatuning Creek	Orangeville
38	Connoquenessing Creek	Hazen
39	Slippery Rock Creek	Wurtemburg
40	Raccoon Creek	Moffatt's Mill

*For information available on each station, see description of station.



Map showing location of Gaging Stations

Legend to Drainage Basins.—D, Delaware; S, Susquehanna; P, Potomac; G, Genesee; E, Erie; O, Ohio.

GAGING-STATION RECORDS

DELAWARE BASIN

DELAWARE RIVER AT PORT JERVIS, N. Y.

LOCATION.—Water-stage recorder near highway bridge at Port Jervis, Orange County, 1½ miles upstream from mouth of Neversink River. Zero of gage is 415.605 feet above mean sea level.

DRAINAGE AREA.—3,070 square miles.

RECORDS AVAILABLE.—October, 1904, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 59,700 second-feet Mar. 15 (gage height, 11.9 feet); minimum, 484 second-feet Sept. 2 (gage height, 1.12 feet).

Maximum discharge during year ending Sept. 30, 1930, 29,400 second-feet Mar. 9 (gage height, 8.05 feet); minimum, 498 second-feet Aug. 10 (gage height, 1.21 feet).

Maximum discharge during year ending Sept. 30, 1931, 35,100 second-feet Mar. 30 (gage height, 8.82 feet); minimum, 441 second-feet Oct. 17 (gage height, 1.13 feet).

Maximum discharge during year ending Sept. 30, 1932, 44,300 second-feet Apr. 1 (gage height, 9.97 feet); minimum, 440 second-feet Sept. 15, 19, 26 (gage height, 1.12 feet).

1904-1932: Maximum discharge, 92,700 second-feet Mar. 28, 1914 (gage height, 16.0 feet); minimum, 175 second-feet Sept. 22, 23, 1908 (gage height, 0.60 foot).

Maximum discharge known, about 155,000 second-feet Oct. 10, 11, 1903 (gage height, 23.3 feet).

REMARKS.—Records good. Considerable diurnal fluctuation owing to operation of power plants on tributary streams. Records furnished by United States Geological Survey, Albany, N. Y.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1,940	1,390	2,680	1,690	1,700	10,900	7,280	11,800	5,340	3,600	1,210	728
2	2,330	1,340	5,020	1,920	2,000	8,060	6,900	10,200	4,420	3,340	922	623
3	2,230	1,390	4,870	2,000	2,000	5,660	6,360	12,900	4,280	3,340	890	594
4	2,230	1,260	3,730	2,000	2,000	5,830	5,830	18,900	3,730	2,600	879	835
5	2,310	1,180	3,340	2,170	2,000	6,540	7,180	13,600	3,340	2,200	697	734
6	2,160	1,360	2,980	3,220	2,200	12,400	12,900	12,600	3,220	2,020	963	850
7	1,670	1,200	2,750	4,940	2,980	13,100	16,500	12,800	3,100	2,000	917	907
8	1,720	1,420	2,400	4,870	4,220	9,090	12,600	12,100	2,860	2,180	963	882
9	2,250	1,390	2,020	3,730	5,660	6,540	10,200	9,960	2,550	1,970	900	720
10	2,020	1,460	1,900	2,980	5,180	5,340	9,520	8,260	2,530	1,560	878	990
11	1,720	1,360	2,060	2,860	4,600	5,500	11,800	7,470	2,310	1,550	676	1,200
12	1,860	1,340	1,900	3,100	4,000	5,180	15,900	6,360	2,120	1,440	682	1,120
13	1,900	1,220	2,350	2,860	3,470	8,260	31,300	6,540	2,100	1,460	1,280	1,110
14	1,520	1,490	2,380	2,200	3,340	27,600	24,200	7,470	1,770	1,110	1,580	1,250
15	1,340	1,420	2,120	2,310	2,980	56,500	18,300	7,860	1,720	1,070	1,750	1,480
16	1,860	1,260	1,770	1,860	2,750	52,500	15,900	8,060	1,550	1,330	1,890	2,100
17	1,700	1,180	1,900	2,100	2,530	41,300	20,100	7,090	1,620	1,180	1,980	2,110
18	1,400	1,020	2,100	2,330	2,710	25,100	18,300	6,180	1,700	1,290	1,440	1,740
19	1,460	1,160	2,330	6,900	2,750	17,100	14,100	5,500	1,620	1,640	1,090	1,740
20	1,430	1,490	3,220	11,300	2,600	13,600	13,800	8,270	1,710	1,570	1,220	1,810
21	1,290	1,810	2,530	6,480	2,400	11,800	30,500	9,740	1,660	1,260	1,150	1,400
22	1,200	1,900	1,980	4,420	2,400	10,600	44,500	12,400	2,000	1,130	1,040	1,250
23	1,390	1,860	1,860	4,000	2,400	11,600	31,600	11,100	1,690	1,260	1,090	1,010
24	1,430	1,860	1,200	3,600	1,900	13,600	22,800	9,090	1,430	1,240	1,110	1,200
25	1,370	1,430	1,570	3,340	2,650	12,600	18,300	9,360	2,090	1,220	996	1,140
26	1,550	1,500	2,120	2,860	3,000	11,800	25,800	8,880	2,780	1,210	931	999
27	1,570	1,520	2,140	2,340	4,980	14,400	26,000	7,660	2,770	1,220	1,290	1,080
28	1,540	1,440	2,270	2,200	12,400	11,600	17,700	6,720	2,530	922	1,050	934
29	1,500	1,360	2,020	2,200	-------	9,740	17,100	7,860	3,220	933	1,040	898
30	1,880	1,520	2,040	2,000	-------	8,460	15,300	6,900	3,720	1,200	1,060	779
31	1,620	-------	2,140	1,900	-------	7,470	-------	6,900	-------	1,340	981	-------

Daily discharge, in second-feet, of Delaware River at Port Jervis, N. Y., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1,110	2,350	2,320	4,040	2,800	11,000	4,640	2,930	4,000	1,960	1,080	872
2	1,740	2,380	2,400	4,210	2,470	9,300	4,570	2,990	3,870	2,180	930	1,080
3	9,870	2,460	2,600	5,580	2,710	8,880	4,540	2,840	3,520	2,150	1,020	1,450
4	9,790	3,700	2,800	7,910	3,390	7,280	4,580	2,830	3,080	1,930	647	1,300
5	6,240	4,100	2,800	5,810	3,180	6,720	4,200	2,860	2,800	1,750	1,050	1,370
6	4,360	3,470	3,000	4,850	2,800	6,100	3,560	2,740	2,620	1,640	1,000	1,470
7	3,630	3,130	3,050	5,040	2,600	5,840	8,480	2,610	2,580	1,700	1,080	1,160
8	2,960	3,080	3,200	6,130	2,400	13,100	15,200	2,800	2,580	2,080	1,290	936
9	2,550	2,980	3,600	7,680	2,200	26,600	11,900	2,700	2,570	1,840	1,010	1,210
10	2,250	2,420	4,390	8,640	2,400	17,600	9,520	2,520	6,080	1,830	818	1,250
11	2,190	2,380	4,050	7,600	2,400	13,500	8,260	2,170	17,000	2,440	662	1,250
12	2,100	2,580	3,390	6,160	2,260	15,300	7,280	1,940	12,100	2,100	1,150	1,170
13	1,560	2,580	3,040	7,740	2,360	14,600	6,720	2,080	7,960	1,790	920	1,140
14	1,500	2,580	4,430	15,200	2,500	12,100	7,280	1,950	6,180	1,580	942	1,200
15	1,670	3,100	9,000	15,800	2,700	10,400	7,280	2,190	5,020	2,200	1,210	968
16	1,570	4,900	8,680	13,600	2,600	8,570	6,540	2,720	4,420	2,690	756	1,490
17	1,570	4,630	7,380	10,300	2,400	8,060	6,540	3,160	3,860	2,210	876	3,150
18	1,550	7,860	10,200	8,030	2,400	8,570	6,540	2,500	3,230	1,950	857	2,710
19	1,450	18,800	19,700	6,400	2,350	11,200	6,180	2,220	2,960	1,690	1,400	2,010
20	1,210	14,600	23,200	5,300	2,890	12,800	5,500	2,690	3,040	1,460	1,280	1,550
21	1,140	10,600	17,900	4,800	5,520	10,400	5,020	2,860	2,770	1,390	1,220	1,400
22	1,500	8,470	11,300	4,400	11,000	8,680	4,720	2,920	2,580	1,800	1,310	1,020
23	3,430	6,790	9,000	4,000	13,000	6,720	4,910	2,590	2,280	1,730	1,670	1,310
24	6,730	5,260	7,500	3,600	13,400	6,360	4,720	2,470	2,260	1,850	1,990	949
25	5,230	5,500	6,460	3,400	12,700	6,180	4,360	3,180	2,250	1,780	2,120	1,000
26	3,880	4,780	6,640	3,200	22,300	6,460	4,300	4,840	2,330	1,470	2,460	1,080
27	3,270	4,410	5,670	3,200	20,500	6,280	3,630	4,360	2,430	1,200	1,970	964
28	3,170	3,840	5,870	3,200	13,700	6,360	3,670	4,050	2,920	1,060	1,670	886
29	2,680	3,960	5,290	3,400	-------	5,230	3,210	4,200	2,450	1,440	1,610	943
30	2,580	3,230	5,350	3,200	-------	4,720	2,940	5,180	1,950	1,250	1,530	1,160
31	2,490	-------	4,450	3,000	-------	4,790	-------	4,570	-------	1,160	1,450	-------
1930-31												
1	1,110	1,090	1,150	1,200	1,200	2,680	16,200	8,760	6,490	2,150	3,290	1,680
2	1,220	714	2,410	1,100	1,100	2,600	18,700	7,690	5,390	1,910	2,720	1,190
3	1,170	832	2,560	1,100	1,100	2,720	19,800	6,680	4,560	1,810	2,750	1,540
4	1,210	809	2,446	1,100	1,100	2,630	18,000	6,680	3,960	1,740	2,790	1,550
5	939	1,070	2,630	1,100	1,100	2,520	18,600	5,920	3,550	1,350	2,740	1,490
6	841	974	2,290	1,300	1,100	2,440	16,200	5,220	8,180	1,590	2,520	1,490
7	982	961	2,640	1,600	1,000	2,300	15,200	4,880	3,110	2,000	2,190	1,200
8	834	936	1,770	1,600	1,000	2,380	15,700	5,050	6,840	3,110	1,900	1,210
9	1,050	765	1,790	1,500	1,000	2,820	14,700	10,000	7,640	6,360	1,890	1,490
10	824	676	1,770	1,300	1,000	3,250	14,700	11,700	6,300	7,710	1,670	1,330
11	767	924	1,690	1,200	1,000	3,480	17,700	9,950	5,920	23,200	2,340	1,300
12	816	1,040	1,710	1,200	1,000	3,160	22,200	14,100	5,560	23,900	2,130	1,060
13	572	794	1,690	1,200	1,000	2,680	16,900	13,900	4,720	13,900	2,150	1,120
14	881	798	1,490	1,100	1,100	2,480	13,200	13,800	4,110	9,560	2,070	837
15	701	937	1,330	1,100	1,200	2,600	11,200	13,700	3,550	7,280	2,080	1,140
16	720	970	1,230	1,100	1,200	3,100	9,950	11,200	3,950	5,920	1,740	1,120
17	646	862	1,200	1,000	1,200	3,180	8,320	10,400	5,760	5,400	1,510	1,260
18	700	1,340	1,200	1,100	1,600	3,480	7,280	11,200	6,760	4,710	2,050	1,460
19	752	1,620	1,300	1,200	2,400	4,450	6,490	8,540	5,600	4,410	1,820	1,480
20	663	1,590	1,300	1,300	3,400	4,340	6,110	7,090	4,340	4,560	1,560	1,460
21	821	1,420	1,300	1,300	3,600	3,960	5,560	7,340	3,820	4,140	1,590	1,110
22	823	1,330	1,300	1,200	3,400	4,570	5,050	9,950	4,240	8,340	1,530	1,180
23	828	1,280	1,300	1,200	3,200	5,800	6,460	9,410	4,440	18,500	1,400	1,100
24	797	970	1,200	1,100	3,000	8,060	10,200	9,220	3,470	11,900	976	1,060
25	956	1,050	1,200	1,100	3,000	13,300	8,940	9,700	3,460	8,760	1,500	922
26	880	1,230	1,300	1,100	2,800	16,800	7,480	12,700	3,190	6,680	1,080	1,090
27	602	1,170	1,500	1,200	2,800	20,800	8,990	13,700	2,830	5,740	1,350	968
28	829	1,020	1,500	1,200	2,800	21,600	9,220	10,300	2,850	4,890	1,340	854
29	755	1,230	1,400	1,300	-------	29,500	8,320	8,320	2,740	4,290	1,660	1,120
30	792	1,160	1,300	1,200	-------	32,100	10,000	6,690	2,550	4,190	2,070	957
31	1,040	-------	1,300	1,200	-------	21,600	-------	6,880	-------	3,880	1,560	-------

Daily discharge, in second-feet, of Delaware River at Port Jervis, N. Y., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	887	1,360	1,850	2,760	11,300	3,820	34,500	3,960	3,380	2,760	1,050	1,250
2	838	1,260	2,270	2,440	9,120	3,550	35,000	5,220	3,340	3,170	1,360	2,160
3	970	1,330	2,400	2,770	8,470	3,680	28,400	6,280	3,450	4,690	1,740	1,840
4	1,010	1,020	2,300	2,900	7,840	4,110	29,400	5,050	2,560	4,260	1,630	1,630
5	660	1,290	1,940	2,680	7,040	4,200	21,000	4,410	2,240	4,360	1,670	928
6	1,330	1,310	1,700	3,010	6,100	3,820	18,000	4,260	2,520	4,730	1,460	860
7	1,380	1,120	2,000	8,340	5,390	3,960	15,700	4,260	2,590	3,820	1,300	1,210
8	1,120	969	2,040	17,200	4,880	3,680	14,000	7,090	2,240	3,960	1,260	962
9	1,210	948	1,550	11,100	5,390	2,820	15,700	14,600	2,160	3,370	2,010	776
10	1,010	1,160	1,920	8,470	5,740	2,810	19,200	12,700	1,910	2,870	2,220	808
11	968	1,100	2,230	6,660	11,600	3,410	21,600	10,000	1,780	2,650	2,170	747
12	696	860	3,020	5,560	16,200	3,430	21,000	8,470	1,670	2,800	1,560	658
13	848	1,110	3,420	4,880	19,200	3,330	20,400	7,440	2,510	2,430	1,330	794
14	934	1,140	5,820	5,560	14,300	2,940	16,200	6,470	3,480	2,140	1,030	936
15	961	874	9,140	5,560	11,000	2,900	13,000	5,390	3,480	2,130	939	573
16	949	1,140	8,700	6,660	8,260	2,650	10,500	4,880	2,970	2,200	1,180	720
17	1,030	1,560	6,440	8,170	7,840	2,960	9,120	4,560	4,860	1,820	1,720	980
18	1,060	2,200	5,220	8,210	7,440	2,940	8,050	4,260	14,100	1,610	1,600	586
19	742	1,800	4,340	11,400	6,100	2,840	7,440	3,550	9,740	2,040	1,480	526
20	1,130	1,920	3,820	9,120	5,390	2,900	6,850	3,350	6,850	1,840	1,150	796
21	869	1,570	3,400	8,050	4,260	2,990	6,100	3,060	5,740	1,490	1,570	806
22	1,080	1,280	3,200	9,120	3,820	2,700	5,740	2,650	6,450	1,480	1,220	644
23	949	1,260	3,260	13,700	4,560	3,550	5,390	2,570	11,200	1,780	1,430	788
24	726	1,640	4,210	17,400	3,550	4,410	5,390	2,820	7,050	1,730	1,430	732
25	718	1,590	3,960	15,400	3,070	4,410	5,390	2,740	5,390	1,320	933	809
26	588	1,410	4,110	11,700	3,150	4,410	5,390	2,760	4,180	1,740	1,010	523
27	951	1,320	3,800	9,790	3,680	6,720	5,050	3,300	3,960	1,430	889	1,140
28	1,090	1,620	3,150	10,200	3,820	12,600	4,880	5,750	4,140	1,600	966	1,430
29	1,280	1,890	3,110	9,120	4,110	11,000	4,410	4,880	3,930	1,880	908	925
30	1,110	1,420	3,230	8,740	-------	9,400	4,110	3,680	3,080	1,560	1,280	827
31	1,340	-------	3,040	16,200	-------	12,600	-------	3,380	-------	1,680	1,430	-------

Note.—Discharge estimated because of ice Dec. 2-6, 23, 24, 1929. Jan. 21 to Feb. 1, Feb. 6-11, 16-18, 22, 23. Dec. 17-31, 1930. Jan. 1 to Feb. 28, 1931. Gage-height record incomplete and discharge partially estimated Dec. 6, 7, 21, 22, 27, 31, 1931, Jan. 11, 12, 1932. Correction for storage not included in daily discharge.

Monthly discharge, in second-feet, of Delaware River at Port Jervis, N. Y., 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches	Correction for storage in second-feet
1928-29						
October	2,330	1,200	1,720			
November	1,900	1,020	1,420			
December	5,020	1,260	2,430			
January	11,300	1,690	3,310			
February	12,400	1,700	3,350			
March	56,500	5,180	14,800			
April	44,500	5,830	17,600			
May	18,900	5,500	9,370			
June	5,340	1,430	2,580			
July	3,600	922	1,660			
August	1,980	676	1,110			
September	2,110	594	1,140			
The year	56,500	594	5,050	1.64	22.32	

Monthly discharge, in second-feet, of Delaware River at Port Jervis, N. Y., 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches	Correction for storage in second-feet
1929-30						
October	9,870	1,110	3,130			
November	18,800	2,350	5,030			
December	23,200	2,320	6,730			
January	15,800	3,000	6,300			
February	22,300	2,200	5,850			
March	26,600	4,720	9,690			
April	15,200	2,940	6,030			
May	5,180	1,940	2,990			
June	17,000	1,950	4,120			
July	2,690	1,060	1,780			
August	2,460	647	1,260			
September	3,150	872	1,310			
The year	26,600	647	4,510	1.47	19.95	
1930-31						
October	1,220	572	856			—344
November	1,620	676	1,050			—170
December	2,630	1,150	1,600			—160
January	1,600	1,000	1,210			— 45.8
February	3,600	1,000	1,800			+111
March	32,100	2,300	7,660			+883
April	22,200	5,050	12,200			+944
May	14,100	4,980	9,400			+352
June	7,640	2,550	4,500			—115
July	23,900	1,350	6,900			— 99.4
August	3,290	976	1,940			—306
September	1,680	837	1,230			—248
The year	32,100	572	4,210	1.37	18.61	+ 65.7
1931-32						
October	1,380	588	982			—349
November	2,200	860	1,350			—425
December	9,140	1,550	3,570			—327
January	17,400	2,440	8,480			+213
February	19,200	3,070	7,310			+367
March	12,600	2,650	4,570			+166
April	35,000	4,110	13,900			+856
May	14,600	2,570	5,280			+200
June	14,100	1,670	4,430			+ 28.7
July	4,730	1,320	2,490			—364
August	2,220	889	1,380			—388
September	2,160	523	945			—443
The year	35,000	523	4,540	1.48	20.11	— 41.5

Note.—Corrections for storage in Wallenpaupack, Toronto, and Swinging Bridge Reservoirs not included in monthly discharge.

DELAWARE RIVER AT BELVIDERE, N. J.

LOCATION.—Water-stage recorder at Belvidere, Warren County, just below mouth of Pequest River.

DRAINAGE AREA.—4,540 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 79,000 second-feet Mar. 15 (gage height, 15.90 feet); minimum, 1,010 second-feet Sept. 5 (gage height, 2.61 feet).

Maximum discharge during year ending Sept. 30, 1930, 38,400 second-feet Mar. 9 (gage height, 11.3 feet); minimum, 930 second-feet Aug. 12 (gage height, 2.50 feet).

Maximum discharge during year ending Sept. 30, 1931, 46,800 second-feet Mar. 30 (gage height, 12.4 feet); minimum, 909 second-feet Oct. 14 (gage height, 2.47 feet).

Maximum discharge during year ending Sept. 30, 1932, 57,000 second-feet Apr. 2 (gage height, 13.6 feet); minimum, 838 second-feet Sept. 28 (gage height, 2.37 feet).

1922-1932: Maximum discharge, about 118,000 second-feet Oct. 1, 1924 (gage height, 19.3 feet, from high water mark); minimum, that of Sept. 28, 1932.

REMARKS.—Records excellent. Table of monthly discharge 1930-1932 corrected for effect of storage in reservoirs on Wallenpaupack Creek and Mongaup River. Complete records furnished by United States Geological Survey, Trenton, N. J.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	3,370	2,360	3,600	2,800	3,200	16,960	10,200	17,900	8,680	5,130	1,780	1,430
2	3,370	2,180	5,120	3,800	3,400	14,100	10,200	15,500	7,270	4,580	1,980	1,200
3	3,600	2,180	6,620	3,000	3,600	10,600	9,430	15,500	6,300	4,580	1,630	1,100
4	3,370	2,270	5,990	2,800	3,600	9,810	8,680	23,600	5,990	4,070	1,560	1,100
5	3,370	2,360	5,120	3,000	3,150	12,300	8,680	21,000	5,400	3,340	1,560	1,200
6	3,600	2,180	4,580	6,500	3,150	19,900	12,800	16,900	5,120	3,150	1,500	1,310
7	3,370	2,360	4,071	10,000	6,020	23,300	20,500	17,400	5,120	2,940	1,500	1,430
8	2,940	2,100	3,830	8,500	7,610	17,400	17,900	17,400	4,850	2,740	1,560	1,700
9	2,940	2,180	3,150	6,620	7,610	12,800	14,600	15,000	4,580	2,940	1,560	2,180
10	3,370	2,180	2,940	6,300	8,320	9,810	13,200	12,800	4,070	2,740	1,500	1,850
11	2,940	2,180	2,740	6,620	7,610	9,050	14,100	11,000	4,070	2,360	1,430	1,850
12	2,740	2,180	2,740	5,690	6,940	9,430	17,400	10,200	3,600	2,180	1,560	2,010
13	2,740	2,180	2,940	4,850	5,690	11,000	35,300	9,810	3,370	2,180	1,430	1,930
14	2,740	2,010	3,370	3,600	5,120	21,000	37,600	10,200	3,370	2,100	1,780	1,850
15	2,360	2,180	3,150	3,600	4,580	64,100	26,900	11,000	3,150	1,780	3,370	2,270
16	2,180	2,180	2,940	3,600	4,580	74,000	22,700	11,900	3,370	1,630	2,740	2,740
17	2,740	2,100	2,740	3,600	4,320	61,500	26,200	11,000	2,940	1,930	2,740	3,150
18	2,550	1,850	3,370	3,370	4,070	38,800	26,900	9,810	2,940	1,780	2,550	3,370
19	2,460	1,850	3,150	4,850	4,070	25,000	22,700	9,050	2,940	2,740	2,180	2,740
20	2,460	2,460	3,830	11,900	4,070	19,900	18,400	9,810	2,940	3,150	1,700	2,270
21	2,360	2,940	3,830	10,600	3,370	17,400	22,900	13,200	3,150	2,740	1,780	2,460
22	2,180	2,940	2,550	6,940	3,150	15,000	53,100	15,000	3,150	2,270	1,700	2,180
23	2,100	2,940	2,010	5,990	3,600	15,000	45,700	15,900	3,370	2,010	1,560	2,010
24	2,270	2,940	1,850	5,400	3,370	17,900	31,900	13,200	2,940	2,010	1,630	1,700
25	2,360	2,740	1,560	4,580	3,370	17,400	25,000	12,300	3,150	2,010	1,630	1,850
26	2,360	2,360	2,100	4,320	4,580	15,500	26,400	12,800	4,070	1,930	1,500	1,850
27	2,460	2,360	2,740	4,070	9,050	16,900	36,000	11,000	4,580	1,930	1,370	1,700
28	2,360	2,180	3,150	3,830	12,800	15,900	25,800	9,810	4,070	1,930	1,850	1,700
29	2,460	2,270	2,940	3,200	-------	13,700	22,700	9,810	4,320	1,630	1,630	1,630
30	2,360	2,850	2,360	3,000	-------	11,900	22,700	10,600	4,850	1,560	1,500	1,630
31	2,740	-------	2,270	3,000	-------	10,600	-------	9,810	-------	1,850	1,500	-------

Daily discharge, in second-feet, of Delaware River at Belvidere, N. J., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1,500	3,830	4,320	6,940	5,120	15,500	7,270	4,850	5,990	2,940	1,560	1,700
2	2,370	3,600	3,830	6,620	4,850	13,700	6,940	5,400	5,120	3,830	1,430	1,370
3	7,290	4,070	3,830	6,940	4,580	12,300	6,940	5,690	5,120	3,830	1,310	1,500
4	14,100	4,580	4,000	9,050	4,580	11,000	6,940	5,120	4,580	3,370	1,370	1,850
5	10,200	5,990	4,400	9,810	5,120	9,430	6,620	4,850	4,070	2,940	1,100	1,630
6	7,270	5,990	4,400	7,270	4,850	8,680	5,990	4,850	3,830	2,740	1,260	1,560
7	5,690	5,120	4,580	6,940	4,320	8,680	9,140	4,580	3,830	2,550	1,370	1,780
8	4,850	4,850	4,850	7,610	4,070	12,200	20,400	4,320	3,830	2,550	1,310	1,500
9	4,070	4,580	4,850	8,680	4,070	33,600	18,900	4,320	3,830	2,740	1,500	1,310
10	3,600	4,320	5,400	10,600	3,830	28,800	15,000	4,070	6,000	2,940	1,310	1,430
11	3,150	3,830	5,990	10,600	3,830	20,500	12,800	3,830	20,800	2,740	1,200	1,500
12	3,150	3,600	5,400	9,050	3,600	20,500	11,400	3,370	21,600	3,150	970	1,560
13	2,940	3,830	4,580	8,680	3,600	21,000	10,600	3,370	14,100	2,740	1,370	1,500
14	2,550	3,830	4,850	13,100	4,320	17,900	10,600	3,370	10,600	2,460	1,260	1,500
15	2,360	4,070	8,490	19,900	4,320	15,500	11,000	4,070	8,680	2,460	1,310	1,560
16	2,460	5,120	11,900	18,400	4,320	13,200	10,600	5,120	7,270	2,940	1,560	1,370
17	2,360	6,620	10,600	15,000	4,070	11,400	10,200	5,400	6,300	3,150	1,260	2,060
18	2,360	8,770	10,200	12,300	4,320	11,400	11,000	5,120	5,990	2,740	1,260	3,830
19	2,270	20,300	18,000	9,430	4,320	13,200	10,600	4,320	5,400	2,460	1,200	3,150
20	2,180	22,100	26,200	6,620	4,850	16,400	9,810	4,580	4,850	2,180	1,700	2,460
21	2,010	16,900	25,000	6,620	6,620	15,000	8,680	4,850	4,580	1,930	1,630	2,010
22	1,930	13,200	16,900	7,610	10,600	12,800	8,320	4,580	4,320	1,850	1,560	1,780
23	3,860	11,000	12,800	7,610	18,000	10,600	7,960	4,580	3,830	2,180	1,850	1,560
24	8,320	9,050	10,200	6,940	16,900	9,050	7,610	4,070	3,600	2,180	2,550	1,560
25	9,430	7,960	9,050	5,690	20,900	9,050	7,270	4,850	3,370	2,360	2,940	1,430
26	6,940	7,960	8,320	5,400	21,000	10,200	6,940	5,690	3,370	2,360	2,740	1,430
27	5,400	6,940	8,320	4,850	28,100	10,600	6,620	6,940	3,600	1,930	2,740	1,560
28	4,850	6,620	8,320	5,120	19,900	10,600	5,990	5,990	3,830	1,700	2,360	1,370
29	4,580	5,990	9,050	5,690	-------	9,050	5,690	5,990	4,070	1,500	2,100	1,200
30	4,070	5,400	8,320	5,400	-------	7,960	5,120	6,300	3,370	1,780	1,930	1,150
31	4,070	-------	7,960	5,120	-------	7,270	-------	6,620	-------	1,630	1,850	-------
1930-31												
1	1,450	1,330	1,930	1,840	1,800	4,560	23,300	11,900	8,680	3,470	4,820	2,180
2	1,330	1,420	2,090	1,700	1,740	4,690	22,700	10,200	7,780	3,040	4,180	2,230
3	1,450	1,190	2,940	1,480	1,520	4,430	26,200	9,430	6,780	2,830	3,700	2,440
4	1,400	1,100	3,250	1,590	1,660	4,560	23,300	8,680	6,030	2,630	3,940	2,730
5	1,450	1,310	3,140	1,550	1,480	4,430	23,300	8,320	5,340	2,630	3,820	2,440
6	1,220	1,580	3,140	2,630	1,640	4,180	21,000	7,610	4,820	2,440	3,700	2,210
7	1,060	1,620	2,940	3,250	1,460	4,060	18,900	6,940	4,430	2,830	3,250	2,090
8	1,320	1,480	2,730	3,140	1,420	4,430	19,400	7,270	7,640	4,060	3,040	1,820
9	1,080	1,370	2,440	3,360	1,590	6,030	18,400	10,400	11,400	4,950	2,730	1,700
10	1,310	1,270	2,400	3,580	1,510	6,030	17,400	15,900	10,200	10,400	2,730	1,950
11	1,190	1,110	2,400	3,140	1,620	6,030	18,400	14,100	10,000	19,600	2,730	1,740
12	1,100	1,260	2,200	2,940	1,680	6,030	24,400	15,000	9,050	32,800	3,250	1,740
13	1,200	1,400	2,200	2,730	1,820	5,480	22,100	17,900	7,780	19,900	3,040	1,450
14	1,000	1,240	2,250	2,440	2,140	4,950	16,900	16,400	6,470	14,100	3,040	1,550
15	1,240	1,260	1,800	1,700	2,340	4,690	14,600	17,400	5,620	10,600	2,940	1,370
16	1,200	1,450	1,400	1,700	2,180	5,080	12,800	15,500	5,620	8,680	2,940	1,480
17	1,200	1,800	1,360	1,900	2,340	5,480	11,400	12,800	7,610	7,270	2,540	1,530
18	1,140	2,250	1,380	2,200	4,560	5,480	10,000	13,700	9,620	6,940	2,340	1,620
19	1,170	2,830	1,740	2,250	5,340	6,030	9,050	11,900	9,050	6,320	2,630	1,880
20	1,190	2,830	1,840	2,250	5,080	6,940	8,320	10,000	7,440	5,890	2,540	1,880
21	1,090	2,540	1,980	2,250	5,210	6,780	7,780	9,810	6,030	6,030	2,250	1,930
22	1,100	2,230	1,870	1,930	5,210	6,470	7,270	11,900	5,340	6,180	2,160	1,620
23	1,210	2,110	1,740	1,740	4,950	7,610	7,780	12,300	6,030	15,300	2,110	1,590
24	1,200	2,000	2,120	2,040	4,630	9,050	12,800	12,800	5,750	15,900	1,930	1,480
25	1,180	1,700	1,580	1,920	4,430	12,800	13,200	11,900	4,950	11,900	1,560	1,380
26	1,260	1,760	1,660	1,840	4,560	18,900	11,000	12,300	4,820	9,050	1,970	1,380
27	1,250	1,900	1,870	1,740	4,690	22,700	11,900	15,900	4,300	7,270	1,680	1,480
28	1,040	1,820	2,730	2,340	4,430	25,000	13,200	13,200	4,060	6,620	2,250	1,400
29	1,150	1,510	2,440	2,250	-------	32,200	11,400	10,800	3,940	5,750	2,250	1,270
30	1,150	1,450	2,250	1,950	-------	45,200	11,400	9,240	3,820	5,620	2,440	1,450
31	1,180	-------	1,930	1,930	-------	33,500	-------	8,320	-------	5,210	2,630	-------

Daily discharge, in second-feet, of Delaware River at Belvidere, N. J., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1,330	1,740	1,880	3,470	15,500	6,030	33,900	6,470	4,430	4,000	2,090	1,770
2	1,190	1,700	2,340	3,470	11,400	5,480	52,200	8,680	4,430	3,940	1,490	1,600
3	1,220	1,620	2,730	3,580	10,400	5,210	37,400	9,430	4,430	4,690	1,680	2,280
4	1,200	1,740	2,940	3,820	10,000	5,480	37,500	8,500	4,300	5,890	2,070	2,440
5	1,310	1,350	2,940	3,940	10,000	6,030	29,400	7,270	3,470	5,480	2,120	1,970
6	1,100	1,560	2,630	3,940	8,680	5,750	22,700	6,470	3,250	5,750	2,110	1,410
7	1,430	1,660	2,440	6,320	7,780	5,500	20,500	6,470	3,470	5,480	1,950	1,260
8	1,640	1,400	2,440	17,800	7,100	5,000	17,400	7,130	3,360	4,820	1,740	1,400
9	1,460	1,320	2,340	15,900	7,270	4,690	17,900	14,700	3,040	4,690	1,720	1,220
10	1,440	1,240	2,140	11,900	7,440	4,060	20,500	16,400	2,830	4,180	2,340	1,060
11	1,270	1,460	2,630	9,810	10,100	4,430	24,400	13,700	2,630	3,580	2,630	1,100
12	1,960	1,420	3,250	8,320	19,400	4,820	20,500	11,400	2,540	3,360	2,630	1,130
13	1,100	1,240	3,940	7,270	22,100	4,950	25,600	10,200	2,830	3,360	2,040	895
14	1,030	1,320	5,210	7,270	19,900	4,430	22,100	9,050	4,010	3,040	1,720	1,030
15	1,170	1,400	7,960	8,140	15,500	4,060	17,400	7,960	4,690	2,630	1,420	1,170
16	1,450	1,280	10,200	7,440	12,300	3,940	14,600	6,940	4,950	2,630	1,300	994
17	1,330	1,280	8,500	9,620	10,400	4,150	12,800	6,470	5,500	2,630	1,350	954
18	1,320	1,800	6,620	9,050	10,200	4,430	11,000	6,180	11,600	2,440	2,250	1,010
19	1,350	2,440	5,750	11,900	9,050	4,430	10,200	5,620	14,800	2,140	2,040	874
20	1,170	2,090	5,080	11,400	7,960	4,430	9,430	4,950	9,620	2,540	2,040	946
21	1,320	2,230	4,560	9,810	6,620	4,690	8,680	4,690	7,610	2,340	1,710	1,080
22	1,190	1,880	4,430	9,430	6,030	4,820	8,140	4,430	7,100	2,090	1,950	1,010
23	1,320	1,660	4,300	12,800	6,030	5,210	7,780	3,820	10,900	2,160	1,620	994
24	1,310	1,480	4,180	17,400	5,890	6,030	7,440	3,820	10,000	2,250	1,650	1,030
25	1,100	1,930	5,210	18,900	4,690	6,620	7,100	3,940	7,270	2,230	1,850	1,080
26	1,010	1,820	4,820	15,000	4,820	6,470	7,440	3,700	6,180	1,820	1,260	986
27	954	1,770	4,950	12,300	4,950	7,270	7,270	3,940	5,210	2,110	1,220	1,220
28	1,040	1,660	4,180	11,900	5,620	14,900	6,940	5,450	5,340	1,960	1,240	1,740
29	1,400	1,850	3,820	11,900	5,890	18,900	6,470	7,270	5,480	2,210	1,310	1,300
30	1,710	2,250	3,700	10,400	-------	15,500	6,030	5,890	4,820	2,340	1,300	-------
31	1,600	-------	3,820	15,000	-------	15,900	-------	4,690	-------	1,970	1,510	-------

Note.—Discharge estimated Jan. 1-8, 15, 29-31 Feb. 1, 2, Dec. 4-6, 1929, Dec. 10-13, 15, 16, 1930, Jan. 15-17, 1931, Mar. 7, 8, 1932.

Monthly discharge, in second-feet, of Delaware River at Belvidere, N. J., 1928-1932.

Month	Observed			Corrected for storage		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	3,600	2,100	2,750			
November	2,940	1,850	2,330			
December	6,620	1,660	3,330			
January	11,900	2,800	5,160			
February	12,800	3,150	5,140			
March	74,000	9,050	20,900			
April	53,100	8,680	22,900			
May	23,600	9,050	13,200			
June	8,680	2,940	4,260			
July	5,120	1,560	2,580			
August	3,370	1,370	1,780			
September	3,370	1,100	1,910			
The year	74,000	1,100	7,200		1.59	21.51

Monthly discharge, in second-feet, of Delaware River at Belvidere, N. J., 1928-1932—Continued.

Month	Observed			Corrected for storage		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1929-30						
October	14,100	1,500	4,590	4,770	1.05	1.21
November	22,100	3,600	7,330	7,430	1.64	1.83
December	26,200	3,830	8,870	8,800	1.94	2.24
January	19,900	4,850	8,700	8,640	1.90	2.19
February	28,100	3,600	8,180	8,210	1.81	1.88
March	33,600	7,270	13,800	14,300	3.15	3.63
April	20,400	5,120	9,430	9,660	2.13	2.38
May	6,940	3,370	4,870	4,840	1.07	1.23
June	21,600	3,370	6,320	6,590	1.45	1.62
July	3,830	1,500	2,540	2,150	.474	.55
August	2,940	970	1,640	995	.219	.25
September	3,830	1,150	1,710	1,330	.293	.33
The year	33,600	970	6,490	6,470	1.43	19.34
1930-31						
October	1,450	1,040	1,210	862	.190	.22
November	2,830	1,100	1,670	1,500	.330	.37
December	3,250	1,360	2,190	2,030	.447	.52
January	3,580	1,480	2,240	2,190	.482	.56
February	5,340	1,420	2,970	3,080	.678	.71
March	45,200	4,060	10,400	11,300	2.49	2.87
April	26,200	7,270	15,700	16,600	3.66	4.08
May	17,900	6,940	11,900	12,300	2.71	3.12
June	11,400	3,820	6,680	6,560	1.44	1.61
July	32,800	2,440	8,590	8,490	1.87	2.16
August	4,820	1,560	2,810	2,500	.551	.64
September	2,730	1,270	1,770	1,520	.335	.37
The year	45,200	1,040	5,690	5,760	1.27	17.23
1931-32						
October	1,710	954	1,280	933	.206	.24
November	2,440	1,240	1,650	1,230	.271	.30
December	10,200	1,880	4,260	3,930	.866	1.00
January	18,900	3,470	9,970	10,200	2.25	2.59
February	22,100	4,690	9,760	10,100	2.22	2.39
March	18,900	3,940	6,570	6,730	1.48	1.71
April	52,200	6,030	17,700	18,500	4.07	4.54
May	16,400	3,700	7,280	7,480	1.65	1.90
June	14,800	2,540	5,670	5,760	1.26	1.41
July	5,890	1,820	3,250	2,890	.637	.73
August	2,630	1,220	1,790	1,400	.308	.36
September	2,440	874	1,270	826	.182	.20
The year	52,200	874	5,840	5,800	1.28	17.37

DELAWARE BASIN—STATION NO. 3

DELAWARE RIVER AT RIEGELSVILLE

LOCATION.—Water-stage recorder at suspension bridge at Riegelsville, Warren County, 600 feet above mouth of Musconetcong River, the flow of which is included in record subsequent to Oct. 1, 1931.

DRAINAGE AREA.—6,340 square miles (including Musconetcong River of 150 square miles).

RECORDS AVAILABLE.—July, 1906, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 83,100 second-feet Mar. 16 (gage height, 18.30 feet); minimum, 1,280 second-feet Sept. 5 (gage height, 1.98 feet).

Maximum discharge during year ending Sept. 30, 1930, 43,300 second-feet Mar. 9 (gage height, 12.4 feet); minimum, 1,350 second-feet Aug. 12 and 13 (gage height, 1.90 feet).

Maximum discharge during year ending Sept. 30, 1931, 57,000 second-feet Mar. 30 (gage height, 14.4 feet); minimum, 1,190 second-feet Dec. 16 (gage height, 1.79 feet).

Maximum discharge during year ending Sept. 30, 1932, 66,600 second-feet Apr. 2 (gage height, 15.76 feet); minimum, 1,090 second-feet Sept. 17 (gage height, 1.72 feet).

1906-1932: Maximum discharge, about 144,000 second-feet Mar. 28, 1913 (gage height, 25 feet), minimum, 870 second-feet Sept. 20, 1908 (gage height, 1.55 feet).

(Minimum discharges do not include flow of Pennsylvania Canal.)

Maximum stage known, 35.9 feet, from high water marks, Oct. 10, 11, 1903 (discharge, about 275,000 second-feet).

REMARKS.—Records good. Pennsylvania Canal diverted 230 second-feet above station Oct. 1, to Nov. 23, 1928, Apr. 1 to Nov. 23, 1929, Apr. 1 to Nov. 15, 1930, Apr. 22 to Oct. 17, 1931; 100 second-feet Oct. 18 to Dec. 31, 1931; 110 second-feet May 2 to Sept. 30, 1932. Table of monthly discharge corrected for diversion and for effect of storage in reservoirs on Wallenpaupack Creek and Mongaup River. Complete records furnished by United States Geological Survey, Trenton, N. J.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	4,960	3,150	5,000	3,610	4,120	22,660	12,000	24,000	11,100	6,170	2,040	1,760
2	4,400	3,150	6,500	4,960	3,860	19,960	11,000	20,400	9,390	5,860	2,130	1,590
3	4,680	2,930	8,080	3,610	3,860	15,300	11,000	21,700	8,080	5,260	1,850	1,430
4	4,680	3,150	7,440	3,610	4,120	14,100	10,800	29,400	7,760	4,960	1,940	1,360
5	4,400	3,610	6,170	3,860	3,860	18,400	10,800	28,900	7,120	4,400	1,940	1,430
6	4,680	3,150	5,560	9,250	4,120	33,500	15,300	23,600	6,800	3,860	1,940	1,590
7	4,680	3,380	4,960	13,300	15,000	33,000	24,500	23,600	6,480	3,610	1,850	1,940
8	4,120	2,930	4,680	9,390	13,300	24,500	23,100	22,600	6,480	3,610	2,040	3,150
9	3,860	3,040	4,400	8,740	10,400	19,400	19,000	19,900	6,170	3,610	2,040	3,860
10	4,120	2,930	3,610	9,390	10,000	14,100	16,500	17,300	5,560	3,610	1,940	2,930
11	4,120	2,930	3,610	10,400	9,070	12,900	17,300	14,900	5,260	3,040	1,940	2,620
12	3,610	2,930	3,860	8,410	7,760	12,900	22,260	13,700	4,960	2,820	2,420	2,720
13	3,610	2,720	3,610	7,440	6,480	14,100	38,400	12,900	4,400	2,720	2,220	2,520
14	3,610	2,820	4,120	4,960	5,860	22,900	44,500	13,300	4,400	2,620	2,320	2,520
15	3,610	2,930	4,120	4,960	5,860	61,600	33,000	14,500	4,400	2,520	8,020	3,860
16	3,150	2,930	4,120	5,260	5,560	80,200	29,400	14,900	4,400	2,220	5,560	3,860
17	3,380	2,820	3,610	4,960	5,260	76,100	36,200	13,700	4,120	2,320	3,860	4,120
18	3,610	2,620	3,860	4,680	5,260	49,900	35,700	12,200	3,610	2,320	3,610	5,260
19	3,610	2,620	4,400	6,480	4,960	33,500	30,400	11,800	3,860	3,380	3,150	4,120
20	3,380	3,380	4,680	11,300	4,960	25,900	25,400	12,500	3,860	4,400	2,620	3,610
21	3,150	3,800	4,960	12,900	4,400	22,600	27,400	15,700	4,400	3,610	2,420	3,380
22	3,150	4,200	4,120	8,740	3,610	19,900	56,100	17,700	4,400	2,930	2,320	2,930
23	2,820	4,400	3,150	7,760	4,400	19,000	54,200	19,000	4,120	2,520	2,130	2,720
24	3,150	4,200	2,930	7,120	4,120	21,200	39,500	16,500	4,120	2,420	2,130	2,320
25	3,150	4,200	2,620	6,480	4,120	21,700	31,900	14,900	4,680	2,320	2,130	2,320
26	3,040	3,800	2,930	5,260	10,500	19,000	35,700	15,300	5,560	2,220	1,940	2,130
27	3,150	3,400	3,150	4,960	22,600	19,400	43,900	13,300	5,860	2,220	1,850	1,940
28	3,150	3,200	3,610	4,680	23,600	19,900	34,500	12,200	5,260	2,130	2,420	1,940
29	3,380	3,400	3,860	4,120	-------	16,500	29,400	11,800	5,860	1,940	2,040	1,850
30	3,040	4,000	3,610	4,120	-------	14,500	28,900	12,500	6,170	1,850	1,940	1,760
31	3,380	-------	3,150	4,120	-------	13,300	-------	12,200	-------	2,040	1,850	-------

Daily discharge, in second-feet, of Delaware River at Riegelsville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	1,760	5,260	4,960	9,700	6,170	20,400	10,200	7,170	8,480	4,280	2,140	2,320
2	3,990	4,960	5,560	9,070	6,170	18,100	9,840	7,820	7,490	4,710	1,990	1,900
3	16,800	5,260	4,960	9,390	6,800	16,100	9,500	8,480	7,170	5,920	1,900	1,970
4	20,400	6,480	5,260	11,400	6,480	14,500	9,500	7,660	6,380	5,160	1,940	2,180
5	14,900	7,440	5,560	12,900	7,440	12,500	9,160	7,170	5,920	4,710	1,800	2,200
6	11,100	7,440	5,860	10,000	7,120	11,800	8,480	6,850	5,460	4,140	1,640	2,010
7	8,410	6,800	5,860	9,700	6,170	11,100	14,300	6,700	5,610	3,880	1,900	2,210
8	7,120	5,860	6,480	10,000	5,860	17,200	27,400	6,380	5,610	3,760	1,800	2,110
9	5,860	5,860	7,120	11,400	5,560	36,200	28,200	6,230	5,760	3,880	1,990	1,990
10	5,260	5,560	7,120	13,300	5,560	39,300	22,100	5,920	7,920	5,610	1,850	1,970
11	4,680	4,960	7,440	13,300	4,960	29,300	18,400	5,610	23,600	5,310	1,690	2,080
12	4,400	4,680	6,170	11,800	5,260	28,200	16,300	5,310	30,100	4,860	1,550	2,090
13	4,120	4,680	5,260	11,400	5,560	28,800	15,000	4,710	20,200	4,420	1,520	1,850
14	3,860	4,680	6,480	15,200	6,800	24,500	15,000	5,010	15,000	3,880	1,720	1,900
15	3,380	4,960	9,390	24,500	7,120	21,100	15,000	6,850	12,000	3,630	1,820	2,060
16	3,380	5,860	14,500	23,600	6,170	18,400	14,600	8,480	10,200	3,880	2,130	2,080
17	3,150	7,760	12,900	19,900	5,560	16,300	15,400	8,150	8,820	4,420	2,010	2,440
18	3,150	12,500	12,500	16,100	5,560	15,800	16,300	7,660	8,150	4,010	1,740	3,880
19	3,040	28,000	19,800	12,200	6,480	17,500	15,800	7,170	7,660	3,510	1,770	4,010
20	2,930	29,900	29,500	9,390	7,120	21,100	15,000	7,170	7,010	3,280	1,990	3,280
21	2,820	22,600	29,900	9,070	9,700	19,700	13,500	7,170	6,540	2,940	2,140	2,630
22	2,720	17,300	22,000	10,400	13,300	16,700	12,400	7,010	6,080	2,840	2,090	2,250
23	6,240	14,500	16,500	9,700	21,000	14,200	11,600	6,700	5,610	3,160	2,300	2,140
24	10,800	12,200	13,300	9,070	21,700	12,400	11,200	6,230	5,010	3,630	2,940	2,060
25	11,800	10,400	11,400	7,760	20,600	12,400	10,500	8,480	5,010	3,510	3,760	1,900
26	9,070	10,400	10,400	7,440	24,100	13,500	9,840	9,500	4,710	3,390	3,280	1,740
27	7,120	9,070	10,800	6,800	34,000	14,200	9,500	10,200	5,160	2,840	3,630	1,920
28	6,480	8,740	10,800	6,800	26,900	13,900	8,820	9,160	5,460	2,440	3,160	1,820
29	5,860	7,760	11,800	7,760	-------	12,400	8,150	8,820	5,610	2,210	2,730	1,640
30	5,260	6,170	11,400	7,120	-------	10,900	7,660	8,820	4,860	2,300	2,630	1,480
31	4,960	-------	10,800	6,800	-------	10,500	-------	9,160	-------	2,340	2,440	-------
1930–31												
1	1,660	1,680	2,090	2,440	2,200	6,080	32,600	14,600	11,200	4,420	5,520	2,870
2	1,640	1,820	2,440	2,110	2,250	6,230	31,000	12,700	10,200	3,880	4,920	2,910
3	1,690	1,760	2,940	1,920	2,060	6,230	34,100	12,000	8,820	3,510	4,500	3,480
4	1,660	1,480	3,630	2,160	2,080	6,080	31,500	10,900	7,820	3,280	4,500	3,840
5	1,710	1,680	3,510	2,140	2,040	6,080	30,000	10,500	7,170	3,390	4,640	3,480
6	1,630	1,870	3,510	5,160	2,020	6,000	28,500	9,500	6,540	3,160	4,230	3,000
7	1,420	2,160	3,510	5,310	2,020	6,000	25,500	8,820	6,080	3,760	3,970	2,870
8	1,470	2,020	3,280	4,010	1,890	7,000	25,000	9,840	9,730	5,460	3,480	2,560
9	1,470	1,820	2,940	4,140	2,230	8,500	24,600	15,000	15,000	6,150	3,250	2,270
10	1,480	1,800	2,940	4,420	2,530	8,500	22,600	21,100	13,100	15,000	3,720	2,480
11	1,550	1,520	2,940	3,880	2,340	8,500	23,000	18,800	12,400	26,400	3,840	2,310
12	1,360	1,500	2,840	3,630	2,340	8,000	28,000	18,800	11,600	39,200	4,100	2,210
13	1,440	1,680	2,730	3,390	2,840	7,500	27,500	23,500	10,200	25,900	3,970	2,020
14	1,260	1,720	2,730	3,160	3,160	6,850	21,600	22,600	8,480	17,700	3,720	2,060
15	1,410	1,690	2,630	2,630	3,570	6,540	18,400	23,500	7,490	13,400	3,720	1,980
16	1,660	1,790	1,840	2,270	3,510	6,850	15,800	21,100	7,840	11,200	3,600	1,890
17	1,480	2,280	1,800	2,440	3,630	7,330	14,200	17,500	10,900	9,180	3,250	2,150
18	1,480	3,950	1,770	2,730	12,600	7,490	12,700	17,100	12,400	8,520	3,000	2,250
19	1,410	3,280	1,990	3,390	9,160	7,820	11,600	15,800	11,600	7,870	2,980	2,500
20	1,470	3,280	2,180	3,510	7,490	9,160	10,500	13,500	9,840	7,550	3,070	2,270
21	1,400	3,050	2,340	3,280	7,170	9,160	10,200	12,700	7,820	7,550	2,730	2,580
22	1,420	2,730	2,340	2,530	7,010	8,820	9,500	15,000	7,010	7,550	2,580	2,270
23	1,600	2,530	2,250	2,440	6,850	9,500	9,500	16,300	7,170	14,700	2,560	2,110
24	1,530	2,440	2,530	2,530	6,540	10,900	14,200	16,300	7,170	19,000	2,410	2,080
25	1,550	2,200	2,110	2,530	6,230	14,600	16,300	15,400	6,380	14,100	2,150	1,850
26	1,580	2,110	2,080	2,440	6,230	23,600	13,900	13,400	5,680	10,800	2,210	1,890
27	1,660	2,200	2,530	2,440	6,230	27,500	15,000	13,800	5,610	8,950	2,190	1,840
28	1,560	2,140	4,010	3,050	6,080	30,500	16,300	17,100	5,310	7,870	3,450	1,930
29	1,380	1,970	3,510	3,160	-------	39,500	14,200	13,900	5,160	6,910	3,480	1,760
30	1,630	1,690	3,160	2,730	-------	55,000	13,500	12,000	4,560	5,290	3,000	1,800
31	1,690	-------	2,530	2,580	-------	44,500	-------	10,500	-------	5,140	3,600	-------

Daily discharge, in second-feet, of Delaware River at Riegelsville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1,990	2,300	2,320	4,280	19,300	7,660	41,100	8,820	5,920	5,460	2,530	2,140
2	1,840	2,130	2,730	4,710	14,600	7,170	62,800	12,700	5,920	5,310	2,250	2,020
3	1,760	2,200	3,050	5,010	13,100	6,850	49,400	12,700	5,760	5,760	2,060	2,530
4	1,760	2,270	3,390	5,460	12,700	7,170	46,300	12,000	5,920	7,170	2,630	2,530
5	1,840	2,040	3,630	5,310	13,100	7,490	40,300	10,200	5,310	7,170	2,630	2,630
6	1,860	1,960	3,390	5,460	11,600	7,490	31,500	9,160	4,710	7,010	2,730	2,130
7	1,870	2,060	2,940	10,600	10,200	7,820	28,000	9,160	4,710	7,010	2,530	1,790
8	2,290	1,900	3,050	21,600	9,840	7,010	24,000	9,500	4,710	6,080	2,940	1,800
9	2,320	1,840	2,940	22,900	9,500	6,380	23,500	16,600	4,280	5,760	2,340	1,820
10	2,020	1,770	2,530	16,700	9,840	5,460	26,500	20,700	4,140	5,160	2,530	1,630
11	1,890	1,820	3,390	13,500	11,400	5,610	31,000	18,000	3,760	4,560	3,280	1,470
12	1,740	1,870	3,510	11,200	22,300	6,540	32,600	15,400	3,510	4,010	3,160	1,580
13	1,660	1,880	4,560	10,200	26,000	6,230	31,500	14,200	4,140	4,140	2,730	1,320
14	1,500	1,790	5,760	9,840	24,500	6,080	28,500	12,700	5,160	3,760	2,290	1,240
15	1,560	1,890	8,480	10,900	18,800	4,860	23,500	11,200	6,380	3,510	2,140	1,500
16	1,960	1,850	11,200	10,200	15,400	4,860	19,300	10,200	6,380	3,050	1,900	1,460
17	2,160	1,680	9,840	11,200	13,100	5,610	16,700	9,500	7,790	3,390	1,820	1,170
18	1,900	2,090	8,150	11,600	12,400	6,230	14,600	8,480	12,500	3,280	2,290	1,350
19	1,990	2,730	6,850	13,100	11,200	6,230	13,500	8,150	19,000	2,630	2,940	1,460
20	1,990	2,730	6,080	14,200	9,840	6,230	12,400	7,330	13,300	2,940	2,940	1,230
21	1,770	2,730	5,610	12,000	8,480	6,540	11,200	6,700	10,500	3,050	2,530	1,200
22	1,890	2,340	5,160	11,600	7,820	6,850	10,900	6,380	9,160	3,160	2,440	1,400
23	1,690	2,160	5,310	13,900	7,330	7,660	10,200	5,920	11,400	3,160	2,250	1,470
24	1,770	1,990	5,160	19,300	7,660	8,480	9,840	5,310	12,700	3,760	1,970	1,300
25	1,690	2,210	5,920	22,600	6,230	9,160	9,500	5,310	9,500	3,280	2,320	1,350
26	1,530	2,340	5,760	18,400	6,080	9,160	9,500	5,310	7,820	2,730	1,850	1,350
27	1,420	2,250	5,610	15,400	6,230	9,960	9,500	5,310	7,010	2,730	1,660	1,400
28	1,410	2,080	5,310	14,200	7,010	20,700	9,160	7,010	7,490	2,530	1,740	1,400
29	1,820	2,290	4,420	14,200	7,660	30,700	8,820	9,500	7,330	2,530	1,640	2,020
30	2,140	2,630	4,140	13,100	-------	24,500	8,150	8,150	6,700	2,840	1,710	1,920
31	2,340	-------	4,420	16,200	-------	23,100	-------	6,700	-------	2,530	1,770	-------

Monthly discharge, in second-feet, of Delaware River at Riegelsville, 1928-1932.

Month	Observed			Corrected for storage[a] and diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	4,960	2,820	3,700	3,930	0.635	0.73
November	4,400	2,620	3,290	3,470	.561	.63
December	8,080	2,620	4,340	4,340	.701	.81
January	13,300	3,610	6,740	6,740	1.09	1.26
February	23,600	3,610	7,540	7,540	1.22	1.27
March	80,200	12,900	26,000	26,000	4.20	4.84
April	56,100	10,800	28,300	28,500	4.60	5.13
May	29,400	11,800	17,000	17,200	2.78	3.20
June	11,100	3,610	5,620	5,850	.945	1.05
July	6,170	1,850	3,210	3,440	.556	.64
August	8,020	1,850	2,540	2,770	.447	.52
September	5,260	1,360	2,650	2,880	.465	.52
The year	80,200	1,360	9,250	9,310	1.52	20.63
1929-30						
October	20,400	1,760	6,610	7,020	1.13	1.30
November	29,900	4,680	9,600	9,870	1.59	1.77
December	29,900	4,960	11,000	11,000	1.78	2.05
January	24,500	6,800	11,400	11,300	1.83	2.11
February	34,000	4,960	10,500	10,600	1.71	1.78
March	39,300	10,500	18,400	18,900	3.05	3.52
April	28,200	7,660	13,600	14,000	2.26	2.52
May	10,200	4,710	7,350	7,540	1.22	1.41
June	30,100	4,710	8,750	9,250	1.49	1.66
July	5,920	2,210	3,830	3,670	.593	.68
August	3,760	1,520	2,190	1,780	.288	.33
September	4,010	1,480	2,200	2,060	.333	.37
The year	39,300	1,480	8,780	8,900	1.44	19.50

[a] Monthly discharge for 1929 not corrected for storage.

Monthly discharge, in second-feet, of Delaware River at Riegelsville, 1928-1932—Continued.

Month	Observed			Corrected for storage and diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1930-31						
October	1,710	1,360	1,530	1,410	0.228	0.26
November	3,950	1,480	2,130	2,070	.334	.37
December	4,010	1,770	2,700	2,540	.410	.47
January	5,310	1,920	3,050	3,000	.485	.56
February	12,600	1,890	4,510	4,620	.746	.78
March	55,000	6,000	13,400	14,300	2.31	2.66
April	34,100	9,500	20,000	21,000	3.39	3.78
May	23,500	8,820	15,500	16,100	2.60	3.00
June	15,000	4,560	8,690	8,800	1.42	1.58
July	39,200	3,160	10,600	10,700	1.73	1.99
August	5,520	2,150	3,490	3,420	.553	.64
September	3,840	1,760	2,380	2,360	.381	.43
The year	55,000	1,360	7,350	7,540	1.22	16.52
1931-32						
October	2,340	1,410	1,850	1,640	.259	.30
November	2,730	1,680	2,130	1,770	.279	.31
December	11,200	2,320	4,990	4,740	.748	.86
January	22,900	4,280	12,500	12,800	2.02	2.33
February	26,000	6,980	12,200	12,600	1.99	2.15
March	30,700	4,860	9,220	9,440	1.49	1.72
April	62,800	8,150	23,100	24,000	3.79	4.23
May	20,700	5,310	9,950	10,200	1.61	1.86
June	19,000	3,510	7,430	7,560	1.19	1.33
July	7,170	2,530	4,180	3,900	.615	.71
August	3,280	1,640	2,340	2,050	.323	.37
September	2,630	1,170	1,650	1,300	.205	.23
The year	62,800	1,170	7,600	7,630	1.20	16.40

DELAWARE BASIN—STATION NO. 4

DELAWARE RIVER AT TRENTON, N. J.

LOCATION.—Water-stage recorder 200 feet above Calhoun Street Bridge, Trenton, Mercer County, half a mile above mouth of Assunpink Creek. Zero of gage is 7.46 feet above mean sea level.

DRAINAGE AREA.—6,800 square miles.

RECORDS AVAILABLE.—February, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 84,800 second-feet Mar. 16 (gage height, 8.9 feet); minimum, 1,680 second-feet Sept. 5 (gage height, –0.19 foot).

Maximum discharge during year ending Sept. 30, 1930, 47,400 second-feet Mar. 10 (gage height, 6.08 feet); minimum, 1,480 second-feet Aug. 13, 14 (gage height, –0.25 foot).

Maximum discharge during year ending Sept. 30, 1931, 53,200 second-feet Mar. 30 (gage height, 6.60 feet); minimum, 1,480 second-feet Oct. 30 (gage height, –0.25 foot).

Maximum discharge during year ending Sept. 30, 1932, 66,100 second-feet Apr. 2 (gage height, 7.63 feet); minimum, 1,220 second-feet Sept. 18, 19 (gage height, –0.37 foot).

1913-1932: Maximum discharge, about 160,000 second-feet Mar. 28, 29, 1913 (gage height, 13.3 feet); minimum, that of Sept. 18, 19, 1932.

(Flow in canals not included in extremes.)

REMARKS.—Records good. Table of monthly discharge corrected for effect of storage on Wallenpaupack Creek and Mongaup River and for diversions by navigation and power canals. Complete records furnished by United States Geological Survey, Trenton, N. J.

Daily discharge, in second feet, of Delaware River at Trenton, N. J., 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	5,280	3,710	4,570	3,710	4,900	23,800	13,600	26,500	12,200	6,380	2,350	2,230
2	5,280	3,540	6,010	5,640	4,900	22,900	13,600	22,100	10,200	6,760	2,350	2,230
3	5,280	3,380	7,160	5,280	5,500	18,900	12,900	22,100	9,040	6,010	2,480	2,000
4	5,280	3,540	8,030	4,570	5,500	16,500	12,200	28,000	8,030	5,640	2,230	1,890
5	4,920	3,710	7,160	4,570	5,500	20,500	11,500	31,400	7,580	5,280	2,110	1,780
6	5,280	3,880	6,380	7,720	4,900	36,600	14,300	25,600	7,160	4,570	2,230	1,890
7	5,280	3,880	6,010	16,500	14,000	34,400	22,900	25,600	6,760	4,220	2,110	2,110
8	4,920	3,540	5,280	11,500	18,100	27,400	25,600	24,700	6,760	4,050	2,000	5,960
9	4,570	3,210	4,920	9,040	11,500	21,300	21,300	22,100	6,760	4,050	2,230	7,160
10	4,570	3,380	4,570	10,800	11,500	16,500	18,100	18,900	6,010	4,050	2,110	4,920
11	4,920	3,380	4,050	12,200	10,200	13,600	18,100	16,500	5,640	3,710	2,110	3,710
12	4,570	3,380	4,050	10,200	8,520	13,600	24,700	15,000	5,640	3,380	2,350	3,210
13	4,220	3,380	4,220	8,520	8,030	13,600	35,200	14,300	5,280	3,210	2,610	3,210
14	4,220	3,210	4,220	7,580	7,580	20,200	46,900	13,600	4,920	3,060	2,480	3,210
15	4,220	3,210	4,570	7,500	6,380	52,800	56,500	15,000	4,920	3,060	6,800	3,880
16	4,050	3,210	4,570	8,000	6,010	81,800	35,400	15,700	4,920	2,760	7,900	4,920
17	3,880	3,380	4,570	7,500	6,010	74,800	38,700	15,000	4,920	2,480	5,280	4,570
18	4,220	3,210	4,570	7,500	5,640	55,800	38,700	13,600	4,220	2,610	4,570	6,380
19	4,570	3,060	4,920	7,500	5,640	36,500	33,400	14,300	4,220	2,900	4,220	6,010
20	4,050	3,210	5,280	9,790	5,640	27,400	27,400	15,000	4,220	4,570	3,710	4,570
21	3,880	4,050	5,280	15,000	5,280	23,800	27,400	16,500	4,920	4,570	2,900	4,220
22	3,710	4,570	5,280	11,500	4,570	21,300	50,700	18,900	4,920	4,050	2,760	3,880
23	3,710	4,220	4,220	8,520	4,570	20,500	59,700	20,500	4,570	3,380	2,760	3,540
24	3,380	4,220	3,540	7,580	4,920	21,300	43,300	18,900	4,570	2,900	2,480	3,210
25	3,540	4,220	3,380	7,160	4,570	22,900	33,400	16,500	4,920	2,900	2,480	2,760
26	3,540	4,050	2,900	6,380	11,200	21,300	36,500	15,700	6,380	2,760	2,350	2,760
27	3,380	3,540	3,210	5,640	30,400	19,700	43,300	15,000	6,010	2,760	2,350	2,760
28	3,710	3,380	3,880	5,640	27,400	21,300	37,600	13,600	6,010	2,610	2,760	2,480
29	3,540	3,540	4,220	5,500	-------	18,900	31,400	12,200	6,380	2,610	2,900	2,480
30	3,710	3,710	4,570	5,500	-------	16,500	30,400	13,600	6,380	2,350	2,480	2,480
31	3,380	-------	3,880	4,900	-------	15,000	-------	12,900	-------	2,230	2,230	-------
1929-30												
1	2,480	6,010	6,760	11,500	8,000	23,900	10,600	7,560	8,850	4,890	2,580	2,640
2	5,700	6,010	6,000	10,200	7,500	20,300	10,000	7,560	7,800	4,530	2,360	2,640
3	19,700	7,600	6,000	10,200	8,500	18,200	10,000	8,580	7,100	5,640	2,170	2,140
4	21,300	9,600	6,500	11,500	9,000	16,500	9,700	8,310	6,660	5,840	2,070	2,120
5	18,900	8,520	6,500	13,600	9,500	14,200	9,410	7,560	6,240	5,080	2,040	2,360
6	13,600	8,520	7,000	12,200	9,000	12,800	9,130	7,100	5,640	4,530	1,920	2,330
7	10,200	8,030	7,000	10,200	8,000	12,500	13,800	6,870	5,450	4,180	1,730	2,140
8	8,030	7,160	7,000	10,200	7,500	23,800	26,500	6,660	5,640	3,940	1,970	2,440
9	7,160	6,760	7,500	11,500	7,000	35,500	30,000	6,440	5,640	4,040	1,900	2,200
10	6,380	6,380	7,500	13,600	7,000	43,000	23,900	6,240	7,230	6,650	2,040	2,090
11	5,640	6,010	8,030	14,300	6,500	31,500	20,300	6,030	18,900	6,240	1,940	2,020
12	5,280	5,640	7,580	12,900	6,000	28,500	17,800	5,640	31,500	5,080	1,730	2,140
13	4,920	5,640	6,380	12,200	7,160	29,500	16,100	5,080	23,000	5,080	1,650	2,140
14	4,570	5,640	5,760	14,600	9,040	26,600	15,700	5,080	16,900	4,360	1,650	2,090
15	4,220	6,010	8,520	25,600	8,520	22,100	16,100	5,840	13,100	4,010	1,920	2,140
16	4,050	6,010	14,300	25,600	7,580	19,900	15,700	8,310	10,900	3,940	2,020	2,250
17	4,050	7,580	15,000	22,100	7,160	17,400	16,500	8,580	9,410	4,360	2,300	2,330
18	3,880	12,300	15,500	18,900	7,000	16,500	17,400	8,060	8,310	4,530	2,170	2,800
19	3,710	26,500	21,300	15,600	6,760	17,400	17,800	7,560	8,060	3,980	1,900	4,710
20	3,710	33,400	30,400	11,500	7,580	20,300	16,100	7,100	7,100	3,680	1,870	4,010
21	3,540	25,600	31,400	9,600	9,600	21,200	14,500	7,320	6,660	3,350	2,250	3,330
22	3,710	20,500	24,700	10,800	12,900	17,800	13,400	7,100	6,240	3,100	2,250	2,820
23	5,890	16,500	18,900	12,200	21,200	15,300	12,200	6,870	5,840	3,290	2,580	2,410
24	10,200	14,300	15,700	11,000	22,900	13,100	11,600	6,660	5,260	3,480	2,790	2,250
25	12,900	12,200	12,900	9,500	28,800	12,500	11,200	7,100	5,080	4,580	3,480	2,200
26	10,800	10,800	12,200	8,500	25,700	13,400	10,600	9,700	4,710	3,680	3,980	2,070
27	8,520	10,800	11,500	8,000	36,600	14,500	10,000	10,000	4,890	3,540	3,740	1,850
28	7,160	9,600	11,500	9,000	31,500	14,500	9,700	10,000	5,080	3,040	3,770	1,990
29	6,760	9,040	12,200	10,000	-------	13,400	8,580	8,850	5,450	2,730	3,290	1,970
30	6,380	8,030	13,600	9,500	-------	12,200	8,310	9,130	5,260	2,790	2,940	1,800
31	6,010	-------	12,200	8,500	-------	10,900	-------	9,130	-------	2,700	2,730	-------

Daily discharge, in second-feet, of Delaware River at Trenton, N. J., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	1,670	1,800	2,040	3,070	2,940	5,840	35,500	14,500	11,600	4,890	6,240	3,770
2	1,820	1,800	2,360	2,970	2,580	6,240	32,500	13,800	10,900	4,360	5,840	3,220
3	1,870	1,970	2,850	2,580	2,670	6,240	33,500	12,500	9,410	3,940	5,080	3,740
4	1,940	1,870	3,640	2,330	2,410	6,030	33,500	11,600	8,310	3,710	4,890	4,530
5	1,970	1,690	4,110	2,580	2,500	6,030	30,500	10,900	7,320	3,580	5,080	4,360
6	2,040	1,730	3,980	3,410	2,360	5,840	29,500	10,000	6,870	3,710	4,890	3,810
7	1,920	1,970	3,980	7,320	2,360	5,640	26,600	9,130	6,240	3,710	4,710	3,350
8	1,690	2,300	3,740	5,260	2,330	6,930	25,700	9,410	9,730	5,080	4,180	3,220
9	1,690	2,170	3,450	5,080	2,520	9,930	25,700	13,400	14,400	6,240	3,940	2,820
10	1,780	1,990	3,190	5,080	3,640	10,300	23,000	20,300	14,500	14,500	4,200	2,610
11	1,690	1,940	3,190	4,890	3,410	8,850	23,000	20,800	13,800	28,500	5,260	2,790
12	1,800	1,690	3,190	4,530	3,040	8,310	25,700	19,100	12,800	38,700	4,890	2,640
13	1,770	1,600	2,970	4,180	3,130	7,800	29,500	23,000	11,200	32,500	4,890	2,500
14	1,690	1,870	2,540	3,840	6,080	7,100	23,900	23,900	9,410	21,200	4,530	2,250
15	1,870	2,120	3,040	3,200	5,560	6,660	19,500	23,900	8,660	16,900	4,360	2,360
16	1,800	1,940	3,220	3,000	4,080	6,440	16,900	22,100	9,770	13,100	4,180	2,220
17	1,970	2,140	2,200	3,000	4,180	6,870	14,900	19,100	13,400	10,900	4,080	2,200
18	1,800	3,910	2,410	3,200	12,300	6,870	13,400	17,400	13,100	9,410	3,680	2,440
19	1,710	4,110	1,990	3,600	11,900	7,320	12,200	17,400	12,500	8,580	3,350	2,520
20	1,690	3,870	2,200	4,200	8,850	8,310	11,200	14,200	10,900	8,310	3,510	2,730
21	1,690	3,710	2,360	4,200	7,800	8,510	10,300	13,800	8,850	8,310	3,450	2,580
22	1,650	3,450	2,520	3,600	7,560	11,000	9,700	14,900	7,560	8,060	3,190	2,880
23	1,660	3,100	2,550	3,200	7,100	8,850	9,410	17,800	6,870	10,400	3,100	2,470
24	1,710	2,910	2,470	3,000	6,870	10,000	11,700	16,900	7,560	22,100	3,100	2,300
25	1,690	2,730	2,940	3,000	6,440	12,500	16,900	16,100	6,870	16,500	2,880	2,220
26	1,650	2,410	2,410	2,800	6,030	18,700	14,900	15,700	6,240	13,100	2,550	2,120
27	1,690	2,360	3,580	2,880	6,030	25,700	14,900	18,200	6,030	10,300	2,730	2,140
28	1,760	2,470	5,260	3,000	6,030	30,500	15,100	18,700	5,640	8,850	2,670	2,090
29	1,710	2,440	4,890	3,680	-------	38,700	15,700	14,900	5,260	8,060	4,420	2,120
30	1,540	2,170	4,180	3,480	-------	50,800	14,200	12,500	4,890	6,870	3,740	1,970
31	1,760	-------	3,770	3,040	-------	47,400	-------	10,900	-------	6,660	3,680	-------
1931-32												
1	1,970	2,360	2,910	4,890	20,800	8,060	37,500	8,310	6,030	6,030	2,700	2,520
2	1,970	2,360	2,470	5,080	16,100	7,560	61,500	12,500	5,840	5,260	2,700	2,640
3	1,850	2,250	2,940	6,080	13,800	7,100	53,100	13,400	5,640	5,450	2,360	2,360
4	1,760	2,250	3,380	5,840	13,100	6,660	46,300	12,800	5,640	6,440	2,170	2,850
5	1,760	2,360	3,840	5,640	14,900	7,100	43,000	11,200	5,640	7,320	2,730	2,880
6	1,850	2,070	4,080	6,240	13,100	7,900	33,500	9,700	4,710	6,870	2,790	2,940
7	1,850	1,970	3,250	13,600	11,200	8,850	29,500	9,130	4,360	7,320	2,820	2,250
8	1,920	2,170	3,100	18,500	10,600	7,800	25,700	9,410	4,530	6,660	2,760	1,820
9	2,640	1,990	3,250	27,500	10,000	7,100	23,900	13,000	4,360	6,030	3,040	1,820
10	2,410	1,870	3,220	20,800	10,000	6,660	26,600	22,100	3,910	5,450	2,440	1,850
11	2,120	1,760	2,880	16,100	10,600	6,030	32,500	19,500	3,810	5,080	2,910	1,690
12	1,970	1,870	3,610	13,100	19,600	6,030	34,500	16,500	3,540	4,360	3,350	1,540
13	1,820	1,990	4,110	11,600	25,700	6,440	32,500	15,700	3,680	4,180	3,320	1,620
14	1,760	1,900	5,260	10,600	27,500	6,440	30,800	13,800	4,360	4,180	2,670	1,480
15	1,600	1,800	6,870	10,900	22,100	5,640	25,700	11,900	5,640	3,740	2,330	1,330
16	1,730	1,970	10,600	10,900	17,400	5,260	21,200	10,600	6,030	3,450	2,120	1,540
17	2,090	1,920	11,200	10,600	14,200	5,260	17,800	9,410	6,660	3,250	1,900	1,460
18	2,220	1,760	8,850	12,500	13,400	6,440	15,700	8,580	10,400	3,410	1,940	1,250
19	1,940	2,220	7,320	11,900	12,800	6,660	13,800	8,060	19,000	3,250	2,700	1,340
20	2,040	2,970	6,440	15,300	10,900	6,440	13,100	7,320	15,400	2,730	3,290	1,440
21	1,970	2,820	5,840	13,100	10,000	6,440	12,200	6,660	11,200	3,220	3,000	1,330
22	1,760	2,850	5,450	11,900	8,310	7,800	11,200	6,440	9,410	3,510	2,640	1,250
23	1,870	2,500	5,450	12,500	7,800	8,850	10,600	6,030	9,130	3,250	2,670	1,380
24	1,710	2,250	5,450	18,200	7,800	9,130	10,000	5,260	14,000	3,770	2,440	1,460
25	1,800	2,090	5,260	23,000	7,320	9,410	9,700	5,260	10,600	3,840	2,220	1,290
26	1,690	2,330	6,030	20,800	6,240	10,000	9,410	5,260	8,310	3,410	2,580	1,330
27	1,500	2,470	5,640	16,900	6,440	10,000	9,700	5,080	7,320	2,910	2,090	1,340
28	1,440	2,380	5,840	14,900	6,660	26,000	9,130	5,840	7,320	3,070	1,920	1,460
29	1,620	2,170	4,890	14,900	7,800	35,500	8,850	8,310	7,560	2,850	1,970	1,420
30	1,970	2,470	4,530	14,200	-------	27,500	8,310	8,850	7,100	2,790	1,900	1,990
31	2,250	-------	4,710	14,200	-------	23,900	-------	7,100	-------	3,040	2,090	-------

Note.—Stage-discharge relation affected by ice Jan. 15-19, Jan. 29 to Feb. 7, Dec. 2-10, 1929. Jan. 24-31, Feb. 1-12, 18, 1930, Jan. 15-26, 1931.

Monthly discharge, in second feet, of Delaware River at Trenton, N. J., 1928-1932

Month	Observed			Corrected for storage[a] and diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	5,280	3,380	4,290	4,620	0.679	0.78
November	4,570	3,060	3,600	3,920	.576	.64
December	8,030	2,900	4,820	5,130	.754	.87
January	16,500	3,710	8,030	8,210	1.21	1.40
February	30,400	4,570	8,890	9,070	1.33	1.38
March	81,800	13,600	27,500	27,700	4.07	4.69
April	59,700	11,500	29,800	30,100	4.43	4.94
May	31,400	12,200	18,400	18,700	2.75	3.17
June	12,200	4,220	6,150	6,450	.949	1.06
July	6,760	2,230	3,740	4,040	.594	.68
August	7,900	2,000	2,990	3,290	.484	.56
September	6,380	1,780	3,550	3,850	.566	.63
The year	81,800	1,780	10,100	10,400	1.53	20.80
1929-30						
October	21,300	2,480	7,720	8,170	1.20	1.38
November	33,400	5,640	10,900	11,200	1.65	1.84
December	31,400	6,000	12,200	12,400	1.82	2.10
January	25,600	8,000	12,700	12,800	1.88	2.17
February	36,600	6,000	12,300	12,400	1.82	1.90
March	43,000	10,900	19,700	20,500	3.01	3.47
April	30,000	8,310	14,400	14,900	2.19	2.44
May	10,000	5,080	7,480	7,750	1.14	1.31
June	31,500	4,710	8,930	9,500	1.40	1.56
July	6,650	2,700	4,220	4,100	.602	.70
August	3,980	1,650	2,380	1,930	.284	.33
September	4,710	1,800	2,420	2,240	.329	.37
The year	43,000	1,650	9,590	9,810	1.44	19.57
1930-31						
October	2,040	1,540	1,760	1,610	.237	.27
November	4,110	1,600	2,410	2,420	.356	.40
December	5,260	1,990	3,150	3,160	.465	.54
January	7,320	2,330	3,720	3,730	.549	.63
February	12,300	2,330	5,100	5,270	.775	.81
March	50,800	5,640	13,100	14,200	2.09	2.41
April	35,500	9,410	20,700	21,800	3.21	3.58
May	23,900	9,130	16,000	16,600	2.44	2.81
June	14,500	4,890	9,330	9,460	1.39	1.55
July	38,700	3,580	11,600	11,800	1.74	2.01
August	6,240	2,550	4,110	4,050	.596	.69
September	4,530	1,970	2,770	2,770	.407	.45
The year	50,800	1,540	7,830	8,090	1.19	16.15
1931-32						
October	2,640	1,440	1,900	1,750	.257	.30
November	2,970	1,760	2,200	1,950	.287	.32
December	11,200	2,470	5,120	4,980	.732	.84
January	27,500	4,890	13,300	13,800	2.03	2.34
February	27,500	6,240	13,000	13,500	1.99	2.15
March	35,500	5,260	10,000	10,500	1.54	1.78
April	61,500	8,310	23,900	25,000	3.68	4.11
May	22,100	5,080	10,100	10,600	1.56	1.80
June	19,000	3,540	7,370	7,670	1.13	1.26
July	7,320	2,730	4,390	4,200	.618	.71
August	3,350	1,900	2,530	2,280	.335	.39
September	2,940	1,250	1,760	1,440	.212	.24
The year	61,500	1,250	7,930	8,100	1.19	16.24

[a] Monthly discharge for 1929 not corrected for storage.

LACKAWAXEN RIVER AT WEST HAWLEY*

LOCATION.—Chain gage at Riverside Bridge, West Hawley, Wayne County, one-half mile above mouth of Middle Creek.

DRAINAGE AREA.—212 square miles.

RECORDS AVAILABLE.—May, 1921, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 4,150 second-feet Apr. 21 (gage height, determined from hydrograph, 7.5 feet); minimum, 15 second-feet Sept. 2, 3 (gage height, 0.74 foot).

Maximum discharge during year ending Sept. 30, 1930, 3,170 second-feet Mar. 8 (gage height, 6.30 feet); minimum, 22 second-feet Aug. 10 (gage height, 0.76 foot).

Maximum discharge during year ending Sept. 30, 1931, 3,820 second-feet Mar. 29 (gage height, determined from hydrograph, 7.1 feet); minimum, 30 second-feet Oct. 4, 26 (gage height, 0.88 foot).

Maximum discharge during year ending Sept. 30, 1932, 3,580 second-feet Feb. 11, June 17 (gage height, 6.8 feet); minimum, 20 second-feet Sept. 26 (gage height, 0.88 foot).

1921-1932: Maximum discharge, about 6,610 second-feet (revised) Sept. 30, 1924, Nov. 17, 1926 (gage height, 10.5 feet); minimum, that of Sept. 2, 3, 1929.

REMARKS.—Results good except those above 400 second-feet and those for estimated periods, which are fair. Low flow regulated by mill operating upstream.

Daily discharge, in second feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	120	105	494	100	199	536	406	536	216	80	48	20
2	93	93	336	130	202	459	272	476	185	84	38	16
3	103	80	264	130	182	389	354	1,300	165	100	41	17
4	100	80	206	100	179	354	302	910	148	82	36	36
5	95	95	185	100	175	625	580	650	155	69	30	63
6	91	82	165	319	189	1,380	790	602	151	59	39	40
7	84	75	117	284	372	732	625	732	142	58	38	35
8	95	68	120	240	675	424	476	558	120	59	32	26
9	91	70	115	240	580	389	424	459	107	50	29	30
10	95	75	110	280	440	319	476	406	115	63	27	40
11	88	64	110	260	400	336	732	354	98	72	22	40
12	79	63	110	192	360	442	1,770	354	91	60	22	38
13	77	82	110	151	340	1,300	1,380	354	84	47	37	30
14	91	74	107	319	302	3,260	910	372	82	46	55	55
15	86	84	110	302	274	3,260	675	558	80	47	88	41
16	80	74	100	216	230	2,580	1,160	459	80	42	77	58
17	89	70	112	165	179	1,380	1,610	372	84	40	42	49
18	82	62	175	182	192	910	1,230	319	75	40	35	54
19	88	86	185	515	260	732	970	424	72	107	44	43
20	88	151	148	336	226	675	1,450	494	63	93	36	37
21	75	115	120	216	223	580	3,500	515	62	63	36	35
22	88	110	110	192	243	602	2,420	650	59	60	33	24
23	82	112	110	179	233	910	1,450	476	55	52	36	53
24	88	112	100	213	196	850	970	389	74	41	31	33
25	84	105	100	202	136	625	910	494	105	43	26	36
26	88	105	107	302	372	850	1,520	406	100	40	29	27
27	117	105	110	302	1,230	675	970	336	91	47	34	22
28	123	100	107	250	1,300	580	790	284	84	47	34	38
29	132	84	100	243	-------	494	1,090	476	145	54	34	22
30	115	89	98	247	-------	442	732	302	93	40	30	29
31	115	-------	100	202	-------	442	-------	247	-------	40	22	-------

* Formerly published as Lackawaxen River near West Hawley.

Daily discharge, in second-feet, of Lackawaxen River at West Hawley, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	35	87	155	256	110	580	239	160	176	60	34	42
2	300	89	150	256	105	498	246	215	147	89	34	58
3	580	176	150	388	100	406	252	179	132	76	26	52
4	280	276	150	406	95	353	235	144	115	67	26	58
5	156	202	156	318	90	336	198	147	106	54	35	37
6	106	160	166	273	90	336	232	120	115	57	32	37
7	106	126	179	283	85	442	1,210	112	115	71	30	38
8	76	117	273	424	85	2,100	1,000	109	93	52	31	60
9	70	106	300	538	85	1,440	580	109	104	54	33	54
10	61	96	235	498	85	768	498	106	300	64	30	39
11	60	93	205	353	85	670	424	78	875	84	24	37
12	57	84	195	336	85	820	388	84	388	59	33	42
13	51	104	336	624	85	624	370	80	283	51	35	52
14	59	106	580	1,280	85	498	424	80	222	60	34	71
15	50	424	670	1,070	90	424	370	218	169	76	34	84
16	52	388	498	768	95	370	318	283	150	67	35	150
17	45	276	460	498	105	388	370	215	132	46	26	232
18	46	1,360	768	388	150	388	442	160	135	52	57	106
19	39	1,530	1,280	336	218	498	424	150	135	48	37	78
20	42	768	1,280	300	370	460	353	246	138	37	33	60
21	47	498	718	270	875	388	318	208	96	45	31	56
22	120	388	538	240	875	300	300	163	84	44	30	61
23	424	336	406	215	820	256	283	150	84	41	82	42
24	252	283	370	195	670	266	263	144	76	46	189	39
25	172	259	370	180	670	283	252	580	71	43	85	40
26	135	235	336	165	1,140	406	229	388	71	38	64	41
27	104	249	318	150	875	370	208	283	87	30	44	41
28	87	242	318	140	624	318	198	246	71	42	39	44
29	76	185	300	130	-------	283	182	300	54	35	33	49
30	73	170	280	125	-------	263	172	249	64	34	38	41
31	74	-------	266	115	-------	246	-------	208	-------	35	38	-------
1930-31												
1	40	56	120	52	115	200	1,010	237	224	38	114	46
2	37	50	129	50	105	200	2,020	221	193	40	93	54
3	36	64	100	54	95	185	1,450	221	164	42	112	76
4	35	47	76	65	90	170	1,610	190	138	44	103	89
5	71	82	78	80	86	165	1,290	181	123	49	95	83
6	63	87	76	225	83	160	1,010	167	116	48	81	81
7	49	61	73	160	80	160	1,010	164	136	78	79	69
8	47	48	73	140	85	175	940	341	417	323	72	72
9	46	39	71	130	110	353	1,010	1,010	270	288	69	57
10	51	40	68	120	170	318	875	543	211	341	79	46
11	50	41	67	110	145	280	1,080	693	193	1,450	71	46
12	36	52	66	104	120	235	780	1,940	159	590	83	37
13	41	46	74	95	140	205	521	1,610	138	341	103	31
14	34	53	73	80	250	195	398	1,530	116	305	95	39
15	41	54	67	68	225	208	308	1,080	108	237	97	46
16	41	48	60	65	190	215	323	693	123	178	93	39
17	39	76	53	65	180	263	305	810	305	151	79	42
18	46	166	53	75	240	336	288	590	205	148	71	43
19	36	98	67	110	450	336	234	457	140	360	76	44
20	42	89	64	198	400	300	221	378	116	254	61	43
21	37	84	60	160	350	283	187	615	112	254	57	50
22	39	74	56	140	310	406	184	590	112	1,150	58	43
23	39	67	52	120	290	580	323	521	99	521	51	44
24	41	61	50	115	280	768	341	521	97	305	54	37
25	39	70	50	110	275	1,530	270	478	83	237	50	35
26	33	101	65	115	260	1,610	254	615	87	199	48	35
27	45	70	98	130	240	2,350	360	457	67	156	51	36
28	40	60	80	170	220	2,510	270	378	72	136	66	48
29	53	55	69	165	-------	3,490	270	288	61	126	76	34
30	58	57	60	150	-------	2,350	288	237	46	167	57	34
31	60	-------	55	130	-------	1,220	-------	237	-------	130	51	-------

Daily discharge, in second-feet, of Lackawaxen River at West Hawley, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	34	57	78	126	417	208	2,760	237	123	136	60	32
2	50	54	72	128	398	181	2,100	288	128	270	51	40
3	33	46	53	99	360	270	2,920	231	140	181	46	63
4	31	44	45	105	325	341	2,180	190	128	172	97	43
5	32	35	57	105	305	288	1,370	170	112	254	79	46
6	34	31	79	260	254	250	1,150	164	108	184	69	58
7	34	29	51	1,520	250	237	940	237	101	153	66	50
8	38	28	48	790	270	215	908	848	89	138	83	61
9	46	34	47	499	288	190	1,010	1,150	78	121	64	42
10	36	34	51	417	350	180	1,370	722	76	116	57	32
11	32	27	64	305	2,870	165	1,290	543	66	108	89	25
12	37	24	410	221	2,100	158	1,080	457	61	99	71	49
13	30	30	543	270	1,610	152	875	378	365	81	69	33
14	39	30	457	341	810	151	693	323	254	76	50	33
15	26	28	360	323	499	170	566	288	187	78	76	34
16	31	48	270	378	417	151	478	254	326	78	58	32
17	32	42	178	323	398	155	437	215	2,330	63	45	35
18	27	37	146	721	360	167	398	175	1,830	63	58	26
19	30	32	136	478	288	178	341	159	875	49	85	25
20	30	29	128	378	270	205	270	151	521	48	89	33
21	28	30	110	360	254	224	254	136	378	57	48	31
22	28	29	114	750	234	231	237	126	566	63	72	34
23	30	31	119	940	221	288	221	119	417	138	64	34
24	27	31	116	1,530	196	323	208	108	305	79	38	32
25	27	34	159	750	190	341	199	101	234	78	34	25
26	26	31	153	543	178	360	196	119	218	79	37	27
27	27	36	123	521	181	378	184	237	205	74	49	34
28	24	39	123	457	234	499	190	305	231	83	37	34
29	30	37	116	378	234	543	178	254	181	81	36	31
30	34	48	114	929	-------	780	172	175	153	72	35	27
31	66	-------	110	749	-------	1,160	-------	130	-------	54	38	-------

Note.—Discharge estimated because of ice, Dec. 10-12, 22-25, 31, 1928, Jan. 1-5, 8-10, Feb. 10-13, Nov. 3 to Dec. 4, 1929, Jan. 20 to Feb. 18, Nov. 28, 29, Dec. 3, 16-19, 21-26, 28-31, 1930, Jan. 1-5, 7-19, Jan. 21 to Mar. 8, Mar. 12, 13, Dec. 8, 9, 1931, Feb. 3, 4, 7, Mar. 6, 8-13, 15, 16, 1932.

Monthly discharge, in second-feet, of Lackawaxen River at West Hawley, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	132	75	94.3	0.445	0.51
November	151	62	89.0	.420	.47
December	494	98	146	.689	.79
January	515	100	229	1.08	1.24
February	1,300	175	353	1.67	1.74
March	3,260	319	888	4.19	4.83
April	3,500	302	1,030	4.86	5.42
May	1,300	247	492	2.32	2.68
June	216	55	106	.500	.56
July	107	40	58.9	.278	.32
August	88	22	37.2	.177	.20
September	63	16	36.2	.171	.19
The year	3,500	16	297	1.40	18.95
1929-30					
October	580	35	124	.585	.67
November	1,530	84	314	1.48	1.65
December	1,280	150	400	1.89	2.18
January	1,280	115	372	1.75	2.02
February	1,140	85	316	1.49	1.55
March	2,100	246	509	2.40	2.77
April	1,210	172	366	1.73	1.93
May	580	78	191	.901	1.04
June	875	54	160	.755	.84
July	89	30	53.5	.252	.29
August	189	24	43.0	.203	.23
September	232	37	60.7	.286	.32
The year	2,100	24	242	1.14	15.49

Monthly discharge, in second feet, of Lackawaxen River at West Hawley, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1930-31					
October	71	33	44.0	0.208	0.24
November	166	39	66.5	.314	.35
December	129	50	71.1	.335	.39
January	225	50	115	.542	.62
February	450	80	199	.939	.98
March	3,490	160	702	3.31	3.82
April	2,020	184	651	3.07	3.42
May	1,940	164	580	2.74	3.16
June	417	46	148	.698	.78
July	1,450	38	280	1.32	1.52
August	114	48	75.6	.357	.41
September	89	31	49.3	.233	.26
The year	3,490	31	249	1.17	15.95
1931-32					
October	66	24	33.2	.157	.18
November	57	24	35.5	.167	.19
December	543	45	149	.703	.81
January	1,530	99	506	2.39	2.76
February	2,870	178	509	2.40	2.59
March	1,160	151	295	1.39	1.60
April	2,920	172	839	3.96	4.42
May	1,150	101	290	1.37	1.58
June	2,330	61	360	1.70	1.90
July	270	48	107	.505	.58
August	97	34	59.7	.282	.33
September	63	25	36.7	.173	.19
The year	2,920	24	267	1.26	17.13

DELAWARE BASIN—STATION NO. 6

WALLENPAUPACK CREEK AT WILSONVILLE

LOCATION.—At hydroelectric plant of Pennsylvania Power & Light Co. with dam at Wilsonville, 1½ miles south of Hawley, Wayne County.

DRAINAGE AREA.—227 square miles.

RECORDS AVAILABLE.—July, 1908, to September, 1932.

REMARKS.—Records good. Flow computed from output of generators. No discharge over spillway. Daily discharge not corrected for storage. Discharge measurements, records of power plant operations, and water surface elevations in reservoir and tailrace furnished by Pennsylvania Power & Light Co.

Daily discharge, in second feet, of Wallenpaupack Creek at Wilsonville, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	586	238	356	254	243	266	15	388	26	284	159	99
2	641	337	208	178	216	313	291	358	126	239	171	0
3	598	317	377	295	92	224	276	548	348	181	46	320
4	741	98	336	420	254	228	330	373	116	0	0	244
5	726	335	340	379	302	216	238	231	231	44	273	361
6	532	183	202	199	333	297	126	955	251	210	206	376
7	103	379	317	425	334	452	27	956	263	326	316	234
8	678	388	86	237	211	382	246	1,020	243	368	303	41
9	572	412	97	329	268	240	146	543	103	269	253	177
10	320	316	402	409	107	193	389	518	303	199	144	282
11	454	197	387	400	279	312	126	477	252	194	102	254
12	502	190	272	184	309	210	256	131	402	173	597	258
13	391	400	344	71	273	314	245	1,020	260	4	446	307
14	0	436	417	286	349	352	78	1,360	37	0	351	70
15	494	411	220	298	262	496	160	535	225	321	186	43
16	437	262	87	269	234	184	158	308	95	296	302	333
17	346	169	371	349	153	248	209	323	287	337	250	168
18	454	116	235	245	284	349	357	37	360	293	0	244
19	440	319	157	188	242	224	324	54	390	189	351	228
20	424	431	361	187	272	359	117	486	288	0	366	227
21	167	402	232	190	271	155	102	1,000	408	43	306	262
22	413	362	240	271	197	119	222	431	94	244	391	0
23	529	417	175	207	163	106	486	412	9	328	430	393
24	336	320	172	269	105	17	467	301	264	379	366	266
25	353	143	131	252	204	207	58	131	372	417	95	162
26	347	422	28	227	329	220	58	68	417	384	446	300
27	474	327	326	82	176	207	167	406	378	108	309	221
28	188	428	246	319	305	177	136	820	541	68	352	174
29	655	148	106	237	-------	0	358	327	203	411	404	27
30	413	529	248	294	-------	39	302	21	59	362	384	398
31	371	-------	251	243	-------	270	-------	84	-------	376	238	-------
1929-30												
1	332	296	367	235	548	407	627	372	10	200	247	88
2	250	212	491	301	178	140	603	328	360	176	378	254
3	161	243	487	546	595	505	623	159	274	216	0	353
4	199	258	545	442	636	331	755	0	322	0	312	294
5	3	326	544	152	630	382	344	346	305	63	287	404
6	202	189	515	534	729	457	210	327	260	0	400	255
7	83	344	521	324	640	606	721	462	234	315	519	96
8	130	498	92	425	550	361	542	469	0	333	295	239
9	22	300	516	489	166	188	320	441	248	277	183	406
10	93	0	636	555	656	324	436	457	273	398	44	428
11	321	281	649	457	406	621	357	143	402	288	501	371
12	222	360	666	230	346	572	152	418	372	303	302	426
13	8	462	541	618	344	609	160	255	129	0	275	351
14	209	429	394	632	270	309	341	412	52	325	437	97
15	209	317	315	488	520	240	408	281	51	458	24	323
16	281	142	582	399	150	168	489	371	94	475	190	371
17	264	201	425	484	349	229	388	294	119	395	0	264
18	325	371	494	538	310	413	86	146	25	365	577	369
19	192	303	583	275	328	376	82	251	65	242	466	286
20	0	449	479	591	329	354	111	171	105	0	413	208
21	252	390	459	472	440	377	142	370	94	510	521	57
22	235	447	314	374	345	140	285	338	28	463	429	462
23	233	363	660	384	164	147	549	322	184	407	573	215
24	367	255	337	526	477	317	588	262	109	352	136	184
25	319	749	243	357	339	331	417	62	150	293	577	187
26	131	421	70	191	712	464	523	641	220	222	473	120
27	147	617	449	669	642	533	151	372	620	32	501	79
28	173	232	493	462	414	393	352	644	163	493	530	70
29	176	405	283	602	-------	104	325	166	10	315	575	289
30	491	611	394	571	-------	158	393	35	216	299	603	270
31	431	-------	126	617	-------	344	-------	4	-------	344	78	-------

Daily discharge, in second feet, of Wallenpaupack Creek at Wilsonville, 1928-1932—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	388	16	262	137	20	0	117	172	76	197	225	116
2	332	89	139	6	27	0	255	229	75	109	0	132
3	398	157	156	36	36	25	80	31	181	282	139	275
4	233	248	196	52	46	0	224	37	103	0	26	61
5	62	126	283	190	32	0	0	52	20	0	97	53
6	329	164	193	210	10	46	194	72	100	195	118	4
7	220	227	43	103	38	0	140	95	11	302	154	138
8	362	131	80	243	14	0	261	24	357	472	406	524
9	239	34	113	176	152	57	264	22	371	580	62	388
10	210	217	141	28	60	207	251	203	302	471	315	387
11	341	314	203	18	92	346	163	29	245	361	82	184
12	106	172	182	178	29	193	8	217	108	47	230	302
13	384	153	70	70	0	0	136	228	122	628	324	0
14	76	287	0	205	138	0	111	108	0	282	304	355
15	122	269	75	135	24	0	87	246	251	310	108	311
16	106	65	176	41	152	88	129	224	447	300	20	300
17	173	93	348	45	218	0	41	80	487	200	266	485
18	178	128	227	37	66	130	0	337	444	287	418	253
19	18	132	285	117	47	218	23	92	541	12	300	153
20	158	93	179	175	53	199	209	291	267	440	372	20
21	200	170	75	95	49	60	164	102	29	141	466	212
22	235	231	483	167	97	0	227	101	674	98	383	228
23	185	20	198	186	0	213	242	371	477	2	47	170
24	313	114	127	3	31	99	124	125	333	146	525	90
25	287	245	0	26	59	137	12	289	477	44	220	237
26	64	115	171	189	91	20	0	406	329	0	341	107
27	204	0	219	142	75	84	392	348	494	387	211	24
28	165	157	97	134	71	38	201	270	52	276	166	232
29	106	309	124	32	-------	0	329	290	494	460	218	119
30	261	82	72	69	-------	400	344	74	252	484	30	14
31	315	-------	17	10	-------	215	-------	57	-------	329	469	-------
1931–32												
1	120	67	415	87	348	295	142	23	518	214	209	558
2	262	223	312	219	477	335	139	97	628	99	566	410
3	287	3.4	394	0	428	304	158	208	588	0	525	603
4	0	252	425	336	424	382	431	193	201	0	263	0
5	550	392	48	580	216	132	475	0	8.6	150	86	0
6	559	184	0	511	159	0	399	240	306	333	73	382
7	352	177	277	89	0	236	137	147	248	114	0	219
8	403	59	109	522	244	223	386	6.8	225	54	417	98
9	244	310	605	312	185	239	151	182	78	25	672	158
10	210	157	467	0	209	363	8.2	463	31	0	604	212
11	48	95	440	135	65	112	415	197	86	420	212	75
12	146	220	0	160	120	364	408	129	79	399	186	157
13	167	234	31	10	55	5.3	468	114	255	344	52	297
14	211	73	305	168	103	351	266	8.2	237	145	0	92
15	162	140	148	199	248	317	106	0	256	664	108	167
16	264	391	278	82	376	248	194	0	174	411	644	425
17	313	585	180	0	463	328	0	277	91	62	597	155
18	0	304	109	200	464	108	421	333	92	459	406	121
19	360	478	173	196	403	8.7	298	106	22	471	0	367
20	73	180	40	403	115	0	279	73	131	293	116	268
21	321	103	418	431	0	254	414	48	414	225	0	219
22	170	21	429	270	42	295	214	0	190	322	154	274
23	116	139	189	527	142	288	28	233	165	400	514	268
24	81	279	326	2.1	222	168	0	421	35	0	24	374
25	8.6	279	0	366	316	35	532	300	183	502	121	26
26	327	16	298	242	247	36	451	500	0	258	125	502
27	365	413	280	200	196	0	490	468	30	113	174	748
28	438	623	284	243	114	124	303	294	655	458	37	836
29	240	140	454	397	351	234	135	0	249	270	349	217
30	443	471	500	222	-------	246	142	32	260	574	444	72
31	259	-------	328	187	-------	468	-------	414	-------	-------	369	-------

Monthly discharge, in second-feet, of Wallenpaupack Creek at Wilsonville, 1928-1932.

Month	Observed			Corrected for storage		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	741	0	441	17.5	0.077	0.09
November	529	98	314	60.1	.265	.30
December	417	28	251	77.8	.343	.40
January	426	71	264	237	1.04	1.20
February	349	92	242	247	1.09	1.14
March	496	0	238	837	3.69	4.25
April	486	15	216	902	3.97	4.43
May	1,360	21	472	586	2.58	2.97
June	541	9	245	117	.515	.57
July	417	0	227	—4.10	—.018	—.021
August	597	0	276	—62.1	—.274	—.32
September	376	0	213	62.9	.277	.31
The year	1,360	0	284	256	1.13	15.32
1929-30						
October	491	0	208	391	1.72	1.98
November	749	0	349	404	1.78	1.99
December	666	70	441	331	1.46	1.68
January	669	152	450	342	1.51	1.74
February	729	150	436	282	1.24	1.29
March	621	104	352	640	2.82	3.25
April	755	82	383	561	2.47	2.76
May	644	0	301	234	1.03	1.19
June	620	0	183	373	1.64	1.83
July	510	0	276	63.4	.279	.32
August	603	0	350	—42.7	—.188	—.22
September	462	57	261	—3.0	—.013	—.01
The year	755	0	332	298	1.31	17.80
1930-31						
October	398	18	221	—29.2	—.129	—.15
November	314	0	152	20.2	.089	.10
December	483	0	159	22.5	.099	.11
January	243	3	105	64.0	.282	.33
February	218	0	61.7	137	.604	.63
March	400	0	89.5	540	2.38	2.74
April	392	0	158	870	3.83	4.27
May	406	22	168	485	2.14	2.47
June	674	0	271	209	.921	1.03
July	628	0	253	248	1.09	1.26
August	525	0	227	27.5	.121	.14
September	524	0	196	—20.8	—.092	—.10
The year	674	0	172	215	.947	12.83
1931-32						
October	559	0	242	—25.9	—.114	—.13
November	623	3.4	234	—11.0	—.048	—.05
December	605	0	267	—6.71	—.030	—.03
January	580	0	235	226	1.00	1.15
February	477	0	232	534	2.35	2.53
March	468	0	210	383	1.69	1.95
April	532	0	267	861	3.79	4.23
May	500	0	178	309	1.36	1.57
June	655	0	215	256	1.13	1.26
July	664	0	251	36.9	.163	.19
August	672	0	260	17.4	.077	.09
September	748	0	260	—53.4	—.235	—.26
The year	748	0	237	208	.916	12.50

Note.—No correction is made for evaporation losses from the reservoir. October, November, December and September show a negative run-off, which may be partly due to evaporation losses (the reservoir has an area of 9 square miles, the total drainage above the plant is 227 square miles) and partly due to seepage losses.

DELAWARE BASIN—STATION NO. 7

SHOHOLA CREEK NEAR SHOHOLA

LOCATION.—Chain gage at highway bridge 1¾ miles south of Shohola, Pike County.
DRAINAGE AREA.—82 square miles.
RECORDS AVAILABLE.—February, 1919, to February, 1932 (discontinued).
REMARKS.—Gage readings at this station unreliable and daily records not published after Sept. 30, 1928. The following current-meter discharge measurements were obtained:

Date	Gage Height	Discharge	Date	Gage Height	Discharge
1929	Feet	Second-feet	1931	Feet	Second-feet
July 28	1.26	16.0	September 29	1.48	18.1
July 28	1.26	15.2	1932		
1930			October 3	.99	3.89
August 26	1.59	45.1			

DELAWARE BASIN—STATION NO. 8

BUSHKILL CREEK AT SHOEMAKERS*

LOCATION.—Chain gage at highway bridge three-quarters of a mile northwest of Shoemakers, Monroe County.
DRAINAGE AREA.—115 square miles.
RECORDS AVAILABLE.—September, 1908, to September, 1932.
EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 994 second-feet Mar. 15 (gage height, 3.83 feet); minimum, 29 second-feet Sept. 2-5 (gage height, 1.12 feet).

Maximum discharge during year ending Sept. 30, 1930, about 1,150 second-feet Nov. 18 (gage height, estimated from hydrograph, 3.75 feet); minimum, 15 second-feet Aug. 12-14 (gage height, 1.08 feet).

Maximum discharge during year ending Sept. 30, 1931, about 1,080 second-feet Mar. 29, 30 (gage height, estimated from hydrograph, 3.7 feet); minimum, 19 second-feet Oct. 14, 15 (gage height, 1.12 feet).

Maximum discharge during year ending Sept. 30, 1932, about 1,300 second-feet Apr. 1 (gage height, estimated from hydrograph, 4.1 feet); minimum, 4.0 second-feet Sept. 21, 26 (gage height, 0.90 foot).

1908-1932: Maximum stage, estimated from hydrograph, 7.2 feet July 24, 1920 (discharge not determined); minimum discharge, 4 second-feet Sept. 21, 26, 1932 (gage height, 0.90 foot).

REMARKS.—Records good except those for discharges above 700 second-feet, which may be poor. Low flows affected by regulation from mills upstream.

* Formerly published as Bushkill Creek near Shoemakers.

Daily discharge, in second-feet, of Bushkill Creek at Shoemakers, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	105	55	208	95	130	460	309	466	227	95	42	31
2	97	55	183	140	120	440	331	420	208	82	40	30
3	92	58	147	160	110	420	288	603	187	73	41	29
4	90	67	130	130	110	420	288	557	173	64	45	29
5	84	99	120	85	110	550	309	488	166	56	42	29
6	101	90	113	400	140	718	443	466	183	84	40	34
7	94	74	113	672	220	626	420	511	159	67	40	34
8	86	74	103	466	360	534	353	443	159	60	39	39
9	82	73	92	511	280	443	309	398	142	56	39	156
10	76	68	97	443	260	398	331	353	127	53	39	97
11	73	64	95	376	260	353	376	331	115	52	38	99
12	68	60	95	309	240	376	603	309	105	51	44	70
13	67	62	88	240	220	488	672	353	97	50	39	56
14	65	64	84	190	190	810	603	376	94	48	46	73
15	64	65	84	160	160	948	534	443	108	46	105	183
16	63	63	86	160	170	948	672	398	110	45	68	136
17	63	60	92	180	170	810	764	353	97	43	51	127
18	63	60	144	200	160	672	672	309	84	42	46	122
19	67	94	133	331	160	603	603	331	86	125	43	94
20	68	190	110	331	160	534	534	353	105	130	40	74
21	65	136	103	309	200	534	580	398	94	90	39	67
22	63	108	95	376	240	511	603	420	82	65	37	59
23	60	97	95	267	220	511	557	376	88	59	36	53
24	60	90	95	173	200	488	488	331	108	52	36	50
25	60	82	90	208	160	466	466	331	101	52	35	46
26	60	78	85	247	240	443	557	288	130	46	34	46
27	58	74	80	309	440	398	488	267	117	46	37	44
28	60	70	80	353	550	376	466	267	108	44	34	42
29	60	65	80	240	-------	331	580	267	156	44	32	42
30	58	71	75	170	-------	309	511	309	122	44	32	42
31	55	-------	75	140	-------	309	-------	309	-------	44	32	-------
1929-30												
1	42	177	210	200	160	269	200	185	154	82	32	23
2	168	165	206	200	158	269	185	288	139	250	29	27
3	561	200	202	216	155	250	185	308	128	200	29	34
4	424	269	200	250	155	233	177	233	121	149	32	28
5	288	250	200	200	155	216	168	200	114	104	32	24
6	216	233	200	233	155	200	185	185	114	99	28	20
7	185	200	220	216	155	200	835	177	157	91	24	19
8	152	200	288	200	155	835	835	171	128	79	23	31
9	134	177	288	269	155	895	589	160	157	68	21	47
10	124	168	250	250	155	646	506	144	646	114	20	34
11	114	163	200	216	155	646	424	134	895	108	18	26
12	104	157	233	233	155	715	374	126	646	84	15	22
13	97	152	308	250	155	589	399	121	506	70	15	23
14	93	163	308	308	155	478	451	124	399	77	15	33
15	88	179	269	399	160	424	374	250	329	86	27	39
16	84	177	250	329	165	374	451	308	269	77	33	39
17	80	168	308	269	175	352	478	250	233	62	28	65
18	73	715	250	250	190	329	533	200	250	58	25	65
19	73	895	374	230	220	451	478	200	216	53	25	48
20	70	618	352	220	352	352	424	233	185	49	25	37
21	70	533	288	210	589	308	399	216	171	46	23	28
22	84	451	269	200	646	250	352	185	157	43	21	28
23	399	374	255	195	561	233	329	171	139	44	65	27
24	352	352	240	190	399	216	308	160	128	44	118	25
25	288	308	230	180	399	288	269	269	118	44	82	25
26	250	288	220	175	424	352	269	233	108	44	59	49
27	216	269	210	170	374	329	233	200	141	44	47	47
28	185	269	206	166	308	288	216	200	128	44	34	35
29	171	233	203	163	-------	250	200	216	104	42	31	29
30	160	216	200	160	-------	233	185	200	91	38	26	27
31	168	-------	200	160	-------	216	-------	168	-------	33	25	-------

Daily discharge, in second-feet, of Bushkill Creek at Shoemakers, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	25	26	88	40	80	130	775	233	185	58	71	37
2	25	23	73	40	72	130	775	216	165	53	65	34
3	25	27	62	42	65	125	715	216	149	52	63	157
4	25	27	56	50	60	110	618	200	139	53	86	106
5	23	48	52	70	55	105	533	185	121	55	65	70
6	23	75	50	250	53	100	478	179	114	80	59	55
7	25	58	55	180	51	100	506	174	99	97	53	44
8	24	48	58	140	50	216	506	250	288	114	52	35
9	25	43	55	110	80	329	424	308	250	106	49	32
10	23	39	52	100	150	288	399	269	233	250	55	29
11	23	35	52	94	100	250	374	269	250	589	73	28
12	23	32	58	84	70	216	329	269	216	424	77	27
13	21	33	56	70	110	216	288	288	174	288	75	25
14	19	29	47	63	240	200	269	352	149	216	63	29
15	22	34	40	58	200	233	250	329	139	168	58	28
16	24	46	36	55	180	250	233	269	128	141	55	29
17	24	104	35	55	190	233	200	250	250	114	51	29
18	27	128	40	60	250	269	216	233	216	111	46	28
19	25	116	55	80	450	308	185	216	168	141	42	26
20	23	70	55	200	350	288	168	216	139	139	39	23
21	27	56	48	120	250	269	168	308	124	124	39	23
22	25	52	42	80	200	269	163	352	104	250	37	21
23	25	49	37	72	160	352	269	374	108	269	37	21
24	25	47	35	70	150	374	269	352	114	269	35	21
25	25	52	35	70	145	506	233	308	97	179	34	21
26	25	56	50	80	145	589	288	308	91	163	34	24
27	23	52	130	100	145	589	374	269	82	111	32	32
28	25	49	90	170	140	589	308	233	71	97	70	32
29	23	40	62	130	-------	955	269	216	66	86	65	27
30	23	35	50	106	-------	955	250	200	59	99	55	24
31	31	-------	43	90	-------	775	-------	185	-------	84	44	-------
1931–32												
1	21	38	46	34	200	200	1,210	370	95	95	27	9.0
2	21	35	40	50	250	177	1,080	399	99	147	28	9.0
3	21	32	34	84	216	179	895	329	97	126	33	9.0
4	21	28	37	88	216	171	775	250	95	124	38	15
5	21	24	51	63	216	163	646	233	82	141	39	12
6	19	21	39	130	200	155	589	216	75	111	28	28
7	19	18	37	329	135	143	506	200	84	95	29	18
8	21	15	34	288	216	136	451	329	68	86	27	14
9	23	15	34	233	233	131	424	399	63	71	25	9.0
10	23	14	65	200	233	126	451	329	59	62	22	8.0
11	21	14	59	174	769	124	478	288	58	56	26	6.5
12	19	14	75	154	835	121	478	308	59	51	32	7.0
13	19	14	104	177	715	118	399	269	151	47	25	6.0
14	18	14	126	233	589	118	352	250	152	44	20	6.0
15	19	15	102	200	478	115	329	233	134	47	19	7.0
16	48	17	80	182	374	113	288	216	116	39	19	7.0
17	39	15	66	168	374	111	269	200	301	46	17	5.0
18	31	15	63	168	352	124	250	182	399	63	24	5.5
19	25	15	60	168	288	121	216	171	288	48	79	5.0
20	23	17	52	168	269	139	200	165	233	42	48	7.5
21	21	17	44	163	250	147	185	149	185	37	32	4.0
22	21	17	49	185	233	174	171	139	216	40	24	7.5
23	21	17	55	216	233	216	157	131	216	52	20	6.5
24	18	17	55	288	185	233	141	121	168	46	18	5.0
25	15	15	49	250	200	233	141	118	144	35	15	5.0
26	14	15	44	216	179	250	154	116	134	33	12	4.0
27	12	15	40	250	179	308	165	114	131	33	11	6.0
28	12	15	46	233	200	589	147	179	163	33	14	8.5
29	22	15	44	216	200	506	136	144	131	29	12	14
30	35	26	38	288	-------	506	144	121	106	27	11	12
31	44	-------	33	269	-------	668	-------	104	-------	26	9.0	-------

Note.—Discharge estimated because of ice Dec. 11, 12, 22-31, 1928, Jan. 1-6, 13-18, Jan. 29 to Mar. 5, Dec. 1-8, 23-31, 1929, Jan. 1, 18-31, Feb. 1-19, Nov. 29, 30, Dec. 3-6, 14-31, 1930, Jan. 1 to Mar. 7, Dec. 30, 1931, Jan. 1, 2, Mar. 6, 7, 10, 11, 15, 16, 1932.

Monthly discharge, in second-feet, of Bushkill Creek at Shoemakers, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	105	55	71.8	0.624	0.72
November	190	55	78.9	.686	.77
December	208	75	105	.913	1.05
January	672	95	270	2.35	2.71
February	550	110	214	1.86	1.94
March	948	309	523	4.55	5.25
April	764	288	490	4.26	4.75
May	603	267	381	3.31	3.82
June	227	82	128	1.11	1.24
July	130	42	61.5	.535	.62
August	105	32	42.3*	.368	.42
September	183	29	67.8	.590	.66
The year	948	29	203	1.77	23.95
1929–30					
October	561	42	178	1.55	1.79
November	895	152	291	2.53	2.82
December	374	200	246	2.14	2.47
January	399	160	223	1.94	2.24
February	646	155	255	2.22	2.31
March	895	200	377	3.28	3.78
April	835	168	367	3.19	3.56
May	308	121	200	1.74	2.01
June	895	91	236	2.05	2.20
July	250	33	78.3	.681	.79
August	118	15	33.1	.288	.33
September	65	19	33.5	.291	.32
The year	895	15	209	1.82	24.71
1930–31					
October	31	19	24.2	.210	.24
November	128	23	51.0	.443	.49
December	130	35	54.7	.476	.55
January	250	40	94.5	.822	.95
February	450	50	150	1.30	1.35
March	955	100	333	2.90	3.34
April	775	163	361	3.14	3.50
May	374	174	259	2.25	2.59
June	288	59	150	1.30	1.45
July	589	52	161	1.40	1.61
August	86	32	54.2	.471	.54
September	157	21	37.2	.323	.36
The year	955	19	144	1.25	16.97
1931–32					
October	48	12	22.8	.198	.23
November	38	14	18.6	.162	.18
December	126	33	54.9	.477	.56
January	329	34	189	1.64	1.89
February	835	135	311	2.70	2.91
March	668	111	213	1.85	2.13
April	1,210	136	394	3.42	3.82
May	399	104	218	1.90	2.19
June	399	58	143	1.24	1.38
July	147	26	62.3	.542	.62
August	79	9.0	25.3	.220	.25
September	28	4.0	8.87	.077	.09
The year	1,210	4.0	138	1.20	16.24

McMICHAELS CREEK AT STROUDSBURG*

LOCATION.—Chain gage at railroad bridge, Wilkes-Barre and Eastern Railroad car shops, three-quarters of a mile southwest of Stroudsburg, Monroe County.

DRAINAGE AREA.—62 square miles.

RECORDS AVAILABLE.—August, 1911, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 1,220 second-feet Jan. 6 (gage height, estimated from hydrograph, 6.1 feet); minimum, 17 second-feet Aug. 8 (gage height, 2.58 feet).

Maximum discharge during year ending Sept. 30, 1930, about 1,220 second-feet Oct. 2, 3 (gage height, estimated from hydrograph, 6.1 feet); minimum, 11 second-feet Sept. 10 (gage height, 2.46 feet).

Maximum discharge during year ending Sept. 30, 1931, about 629 second-feet Mar. 8 (gage height, estimated from hydrograph, 4.9 feet); minimum, 7.2 second-feet Nov. 30 (gage height, 2.34 feet).

Maximum discharge during year ending Sept. 30, 1932, about 1,010 second-feet Mar. 28 (gage height, 5.66 feet); minimum, 14 second-feet Sept. 23 (gage height, 2.43 feet).

1911-1932: Maximum stage, 8.8 feet Feb. 20. 1918 (discharge not determined); minimum discharge, that of Nov. 30, 1930.

REMARKS.—Records good except those for discharges above 300 second-feet, which are poor. Low-water flow affected by operation of power plants above station.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	54	32	111	52	28	173	74	150	66	35	23	20
2	52	34	62	86	24	150	84	150	60	33	19	20
3	51	34	57	79	24	121	76	290	57	35	20	19
4	50	44	55	36	22	117	72	173	55	30	26	19
5	48	49	52	44	20	497	102	173	57	31	22	19
6	57	39	49	623	28	623	150	161	58	32	20	23
7	48	34	53	198	280	290	115	161	53	30	22	23
8	45	34	45	226	161	185	111	139	62	28	18	41
9	46	34	44	185	95	150	100	123	54	28	20	33
10	43	32	44	173	76	113	123	119	48	26	22	27
11	42	32	44	150	60	108	100	108	48	25	26	24
12	43	34	44	111	55	110	325	96	45	25	29	22
13	42	37	42	96	42	125	185	111	44	25	23	22
14	39	34	42	90	38	211	173	119	43	26	119	39
15	39	34	44	85	32	198	150	119	55	23	185	36
16	41	34	41	87	32	185	272	93	42	23	42	27
17	41	33	43	80	42	161	343	84	52	22	38	66
18	41	33	63	96	32	115	290	82	48	22	32	40
19	49	51	48	129	28	127	240	119	37	79	31	26
20	42	65	44	84	38	127	211	100	45	30	27	23
21	38	41	42	80	48	115	226	150	41	28	26	23
22	40	40	44	91	55	119	240	108	53	25	26	22
23	37	40	42	68	42	123	173	96	41	25	26	22
24	39	36	42	69	32	113	161	91	77	23	26	23
25	35	36	46	60	32	100	161	91	60	24	23	22
26	35	34	44	95	150	100	226	84	43	23	23	21
27	38	34	42	110	667	89	173	79	36	21	23	21
28	35	34	16	57	325	89	173	77	43	23	23	20
29	32	34	44	48	-------	77	198	77	42	22	22	20
30	34	36	45	41	-------	74	161	106	32	23	24	28
31	34	-------	44	38	-------	74	------	76	-------	23	23	-------

* Formerly published as McMichaels Creek near Stroudsburg.

Daily discharge, in second-feet, of McMichaels Creek at Stroudsburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	21	62	85	75	60	131	83	81	76	56	27	19
2	387	59	78	114	60	137	83	116	80	47	25	21
3	425	102	73	137	60	120	80	106	76	65	23	22
4	158	102	66	118	60	135	80	78	70	59	24	20
5	118	73	65	122	60	122	73	76	62	51	23	18
6	96	66	65	146	60	100	76	73	71	56	21	20
7	90	66	90	106	60	94	370	71	76	51	21	17
8	76	60	102	120	60	586	289	66	66	48	21	19
9	70	62	87	124	60	304	233	63	70	44	21	14
10	57	59	74	112	60	246	207	59	353	74	21	13
11	57	59	70	102	60	260	182	55	425	51	20	15
12	55	57	66	122	60	260	158	54	260	44	21	16
13	50	57	94	135	60	207	182	54	207	42	21	20
14	48	66	110	194	60	182	170	59	182	48	21	21
15	50	68	110	194	60	158	123	158	151	42	31	20
16	75	62	102	170	60	158	238	142	133	37	27	19
17	40	68	106	158	65	146	207	114	120	37	19	26
18	40	586	127	131	68	149	194	104	120	35	22	21
19	40	503	194	120	80	158	182	129	104	33	23	19
20	38	289	158	110	149	129	158	124	96	32	25	20
21	39	233	130	100	207	114	153	100	85	31	21	17
22	55	194	105	95	182	102	149	92	81	27	22	18
23	124	158	90	85	170	98	131	87	74	34	63	17
24	78	153	80	78	158	94	122	87	74	36	30	18
25	70	140	73	72	151	149	118	207	71	37	30	18
26	62	127	65	68	194	135	110	124	65	33	25	22
27	59	122	64	65	158	110	102	116	65	29	25	18
28	55	118	63	63	140	100	96	118	59	29	20	13
29	51	102	60	62	-------	98	90	108	56	27	20	15
30	54	95	60	60	-------	92	87	80	56	27	21	20
31	53	-------	60	60	-------	90	-------	87	-------	29	18	-------
1930-31												
1	15	22	55	22	21	73	260	78	70	30	46	28
2	17	17	28	18	19	73	274	76	63	30	45	23
3	17	21	22	20	20	66	220	76	57	31	45	140
4	17	19	25	22	20	68	207	73	57	30	74	50
5	14	30	22	36	19	62	182	66	55	30	51	43
6	17	28	21	182	19	57	158	70	52	60	43	66
7	18	18	20	81	19	57	220	71	54	73	38	51
8	14	17	24	50	19	207	170	194	102	182	38	39
9	17	18	25	59	22	274	146	158	66	85	43	29
10	16	19	30	40	35	156	149	144	74	289	63	31
11	18	17	21	33	24	129	144	149	63	233	70	25
12	13	17	22	37	20	112	118	140	55	131	52	25
13	16	15	20	31	22	104	112	144	50	98	50	25
14	14	14	14	20	85	98	102	133	47	80	43	31
15	22	21	14	20	36	89	96	127	47	68	40	40
16	26	28	14	20	43	96	90	110	62	60	39	34
17	18	56	14	23	54	81	90	102	66	55	38	32
18	26	50	16	28	304	86	87	96	51	55	28	35
19	11	28	18	34	288	85	74	92	46	52	31	33
20	18	23	18	42	120	89	74	87	45	50	32	32
21	17	20	17	35	102	85	71	170	42	47	29	34
22	16	18	19	24	85	87	70	106	44	140	28	27
23	18	18	17	21	94	81	106	149	47	81	26	30
24	22	18	16	23	94	81	74	102	47	144	28	28
25	11	17	16	23	83	129	70	98	38	94	25	26
26	15	20	20	25	80	110	118	94	43	63	25	30
27	19	15	83	29	74	102	135	83	37	59	34	30
28	18	15	45	39	66	104	90	80	37	55	73	28
29	19	14	44	38	-------	304	83	74	35	50	45	26
30	18	8	32	30	-------	260	81	71	33	57	36	22
31	18	-------	29	28	-------	233	-------	70	-------	48	34	-------

Daily discharge, in second-feet, of McMichaels Creek at Stroudsburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	24	29	35	36	90	70	584	172	48	43	29	21
2	22	29	23	138	94	60	467	171	48	46	27	21
3	23	28	25	89	92	60	365	120	47	43	24	23
4	22	28	25	63	102	55	292	110	46	51	28	18
5	25	25	40	57	144	57	251	102	43	50	27	24
6	23	27	26	139	100	57	238	100	46	44	26	22
7	22	26	26	233	96	56	200	108	46	46	23	23
8	20	23	32	182	104	56	188	123	41	39	29	23
9	25	28	30	194	94	55	176	135	36	36	26	20
10	26	26	42	158	89	54	238	108	36	34	26	20
11	22	28	38	129	153	53	238	94	34	32	27	19
12	26	26	40	114	118	52	212	102	36	33	26	21
13	24	25	57	133	104	52	176	94	72	33	26	21
14	23	28	55	122	96	46	162	88	51	30	21	21
15	26	23	433	112	94	48	151	81	47	30	26	17
16	52	30	36	106	87	50	140	79	53	31	23	17
17	32	26	32	98	84	52	127	72	127	36	21	16
18	25	28	30	96	80	63	129	66	72	32	27	16
19	26	28	32	87	76	65	118	66	56	30	55	20
20	25	25	36	81	73	68	110	62	55	28	30	21
21	23	23	34	76	69	66	110	61	53	29	27	21
22	25	19	30	87	64	94	104	58	53	36	26	20
23	25	26	42	81	60	101	94	51	48	48	23	16
24	23	25	39	110	57	94	86	56	43	32	24	24
25	22	25	37	83	59	92	86	53	41	30	23	35
26	26	22	34	78	63	98	85	55	41	29	24	18
27	26	26	22	89	62	114	102	56	44	28	23	20
28	26	26	28	83	87	582	83	120	85	29	21	26
29	38	19	28	76	80	467	76	62	52	30	22	27
30	43	38	24	131	-------	365	76	55	42	26	23	21
31	36	-------	25	102	-------	381	-------	53	-------	23	24	-------

Note.—Discharge estimated because of ice Dec. 10, 1928, Jan. 14, 15, 29, 31, Feb. 1, 3–7, 11-25, Nov. 30 to Dec. 6, Dec. 21, 22, 24-31, 1929, Jan. 1, Jan. 19 to Feb. 18, Nov. 28, Dec. 15, 16, 24, 1930, Jan. 8, 15–17, 24, 25, Feb. 2, 4–9, 12, 1931, Feb. 17, 18, 20–23, 25, Mar. 7–11, 15, 16, 1932.

Monthly discharge, in second-feet, of McMichaels Creek at Stroudsburg, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	57	32	42.3	0.682	0.79
November	65	32	37.3	.602	.67
December	111	41	48.6	.784	.90
January	623	36	112	1.81	2.09
February	667	20	89.6	1.45	1.51
March	623	74	160	2.58	2.97
April	343	72	173	2.79	3.11
May	290	76	120	1.94	2.24
June	77	32	49.9	.805	.90
July	79	21	28.0	.452	.52
August	185	18	33.2	.535	.62
September	66	19	26.4	.426	.48
The year	667	18	76.6	1.24	16.80
1929-30					
October	425	21	86.2	1.39	1.60
November	586	57	132	2.13	2.38
December	194	60	89.5	1.44	1.66
January	194	60	110	1.77	2.04
February	207	60	95.8	1.54	1.60
March	586	90	160	2.58	2.97
April	370	78	151	2.44	2.72
May	207	54	96.4	1.55	1.79
June	425	56	116	1.87	2.09
July	74	27	41.6	.671	.77
August	63	18	24.3	.392	.45
September	36	13	18.5	.298	.33
The year	586	13	93.4	1.51	20.40
1930-31					
October	26	11	17.3	.279	.32
November	56	9.0	21.4	.345	.38
December	83	14	25.2	.406	.47
January	182	18	35.9	.579	.67
February	388	19	71.9	1.16	1.21
March	304	57	117	1.89	2.18
April	274	70	129	2.08	2.32
May	194	66	106	1.71	1.97
June	102	33	52.8	.852	.95
July	289	30	82.6	1.33	1.53
August	74	25	41.7	.673	.78
September	140	22	36.4	.587	.65
The year	388	9.0	61.4	.990	13.43
1931-32					
October	52	20	26.6	.429	.49
November	38	19	26.2	.421	.47
December	57	22	33.7	.544	.63
January	233	36	108	1.74	2.01
February	153	57	88.7	1.43	1.54
March	582	46	116	1.87	2.16
April	584	76	182	2.94	3.28
May	172	51	88.2	1.42	1.64
June	127	34	51.4	.829	.92
July	51	23	35.1	.566	.65
August	55	21	26.0	.419	.48
September	35	16	21.1	.340	.38
The year	584	16	66.8	1.08	14.65

LEHIGH RIVER AT TANNERY

LOCATION.—Water-stage recorder 600 feet above highway bridge in Tannery, Carbon County. Zero of recorder gage is 1,041.98 feet above mean sea level. Chain gage on bridge prior to Oct. 17, 1928. Zero of chain gage is 1,029.41 feet above mean sea level.

DRAINAGE AREA.—322 square miles (revised).

RECORDS AVAILABLE.—June, 1914, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 4,340 second-feet Mar. 15 (gage height, 6.28 feet); minimum, 67 second-feet Aug. 22 (gage height, 1.55 feet).

Maximum discharge during year ending Sept. 30, 1930, about 3,090 second-feet June 11 (gage height, 5.41 feet); minimum, 37 second-feet Sept. 28 (gage height, 1.46 feet).

Maximum discharge during year ending Sept. 30, 1931, about 6,300 second-feet Mar. 29 (gage height, 7.5 feet); minimum, 44 second-feet Nov. 28 (gage height, 1.53 feet).

Maximum discharge during year ending Sept. 30, 1932, about 5,100 second-feet Apr. 1 (gage height, 6.84 feet); minimum, 32 second-feet Sept. 25 (gage height, 1.42 feet).

1914-1932: Maximum stage, about 15.0 feet (chain gage datum) Nov. 16, 1926 (discharge not determined); minimum discharge, that of Sept. 25, 1932.

REMARKS.—Records good except those for estimated periods, which are fair. Slight diurnal fluctuation caused by operation of power plants. Water-stage recorder, well, and shelter furnished by United States Engineer Office, Philadelphia, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	225	163	695	189	320	800	730	870	405	286	112	99
2	212	163	590	200	320	695	765	835	378	259	108	97
3	200	163	465	220	320	695	695	1,820	335	226	108	96
4	188	157	378	260	320	660	660	1,700	305	192	116	94
5	175	230	345	350	400	1,030	870	1,500	315	182	116	94
6	188	230	300	1,280	590	1,500	2,010	1,300	350	182	112	104
7	200	210	242	1,400	695	1,300	1,700	1,400	335	185	110	112
8	188	196	259	1,210	730	1,030	1,400	1,210	325	192	101	126
9	175	192	282	1,300	625	870	1,210	1,030	320	166	97	352
10	164	189	282	765	590	695	1,210	910	295	154	101	277
11	153	175	254	558	495	695	1,300	800	263	146	112	246
12	142	185	234	495	405	765	1,500	730	246	185	122	210
13	132	178	218	440	345	1,120	1,700	910	238	214	136	182
14	132	175	218	400	378	2,960	1,500	870	222	129	347	686
15	142	178	222	400	345	3,760	1,210	910	226	151	765	590
16	142	178	218	400	330	3,350	1,400	835	230	136	465	378
17	132	178	230	440	320	2,590	1,500	765	222	120	291	435
18	151	163	345	525	340	1,700	1,400	660	230	118	200	495
19	169	214	330	660	350	1,400	1,300	730	214	402	163	340
20	192	378	286	650	350	1,120	1,700	835	291	320	151	254
21	189	330	230	550	340	1,030	2,020	870	405	226	141	203
22	189	291	263	460	340	1,030	2,240	950	277	182	126	178
23	175	263	242	435	340	1,120	1,910	800	218	160	124	168
24	185	238	254	400	380	1,120	1,500	730	405	136	114	148
25	189	230	214	380	558	1,030	1,400	695	378	129	114	143
26	185	203	210	380	695	950	1,500	525	378	129	112	141
27	185	214	185	360	1,030	870	1,300	495	310	124	108	141
28	166	203	192	340	1,030	800	1,120	495	345	120	102	136
29	192	200	185	340	-------	730	1,120	558	495	118	101	134
30	185	250	222	320	-------	695	1,030	558	350	116	102	134
31	172	-------	272	320	-------	730	-------	465	-------	114	101	-------

Daily discharge, in second-feet, of Lehigh River at Tannery, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	138	495	400	558	380	765	590	465	453	355	116	96
2	1,170	465	380	590	460	730	611	807	411	1,080	135	93
3	2,740	590	380	730	435	625	618	709	366	758	130	98
4	1,830	765	400	765	350	600	625	716	325	532	124	103
5	1,120	695	400	500	350	550	577	611	300	405	121	101
6	800	590	465	500	280	525	564	544	342	361	113	101
7	625	525	405	590	240	525	2,060	465	558	345	110	103
8	495	495	525	730	260	1,380	2,180	435	453	291	110	105
9	405	465	660	870	280	1,860	1,600	405	489	320	105	103
10	350	435	558	800	280	1,350	1,300	378	1,500	814	103	91
11	320	405	440	660	220	1,160	1,120	356	2,830	625	98	91
12	295	405	380	660	240	1,210	982	320	1,860	465	98	89
13	277	300	500	765	280	1,030	966	305	1,210	350	96	89
14	259	330	660	870	320	926	1,080	310	918	405	98	127
15	246	525	835	870	300	793	934	604	737	453	108	144
16	238	525	765	765	240	716	1,120	674	611	361	121	127
17	226	495	695	600	260	637	1,450	513	513	291	110	132
18	218	1,570	765	500	300	674	1,550	411	495	247	101	130
19	210	2,020	1,020	460	345	1,120	1,400	405	483	222	101	121
20	203	1,500	1,500	460	492	950	1,210	465	423	203	98	101
21	200	1,120	1,030	600	990	793	1,010	447	378	196	96	98
22	419	910	500	460	1,210	660	910	423	340	188	93	91
23	2,130	765	500	400	1,120	590	821	388	310	214	108	89
24	1,500	695	500	440	1,030	584	737	387	291	199	181	89
25	1,030	625	500	380	1,030	618	674	1,090	378	181	141	85
26	765	590	550	400	1,120	910	632	950	372	170	130	91
27	625	558	590	460	1,030	894	570	737	625	167	138	98
28	558	558	325	500	835	772	538	646	441	160	130	91
29	495	465	695	380	-------	702	495	681	340	151	127	91
30	465	440	660	300	-------	695	465	604	286	147	110	108
31	465	-------	590	340	-------	653	-------	525	-------	138	96	-------
1930-31												
1	130	81	144	75	100	260	1,550	532	564	177	218	177
2	115	75	217	70	100	240	1,860	489	495	167	203	167
3	91	73	144	85	110	220	1,800	465	429	167	210	170
4	87	71	124	174	120	220	1,800	441	388	167	282	214
5	87	89	130	210	140	220	1,600	400	356	177	226	214
6	81	127	121	180	181	220	1,400	305	320	181	207	207
7	79	85	91	120	120	220	1,300	330	337	181	203	199
8	79	87	118	95	140	240	1,260	892	786	634	196	192
9	79	87	113	90	150	447	1,300	1,350	625	471	214	192
10	77	81	105	90	140	320	1,210	1,030	604	1,180	305	188
11	77	73	103	120	100	300	1,210	1,210	597	2,020	310	184
12	75	79	103	160	130	280	1,080	1,300	501	1,160	310	181
13	75	75	103	140	180	280	942	1,390	423	744	361	167
14	71	77	82	100	180	286	842	1,700	361	519	345	151
15	71	78	70	80	120	305	779	1,400	315	429	300	147
16	71	79	65	100	140	320	695	1,120	443	356	296	151
17	77	87	70	120	214	315	625	1,010	674	310	264	151
18	81	103	85	160	296	350	584	870	507	286	230	144
19	81	105	127	220	400	441	532	765	388	278	210	130
20	77	93	96	240	361	429	489	702	325	260	207	115
21	75	79	103	160	200	400	453	1,090	296	278	207	164
22	73	81	135	110	190	489	429	1,120	260	453	181	160
23	75	81	120	100	180	544	667	1,030	264	447	167	151
24	75	73	95	120	190	786	730	1,080	268	835	174	144
25	77	81	80	100	200	1,270	653	1,030	239	604	181	124
26	79	93	100	226	200	1,650	702	1,080	327	429	160	115
27	73	81	140	196	200	1,750	758	870	330	340	154	103
28	79	61	154	160	220	1,750	660	744	251	282	157	124
29	87	54	120	147	-------	3,550	625	625	218	260	160	107
30	77	75	100	130	-------	2,960	590	570	192	282	170	105
31	85	-------	85	120	-------	1,910	-------	674	-------	247	167	-------

Daily discharge, in second-feet, of Lehigh River at Tannery, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	89	103	101	98	630	378	4,630	590	411	430	164	108
2	96	110	103	123	507	335	3,330	950	378	570	188	105
3	87	105	84	174	538	361	3,480	793	378	550	167	98
4	79	93	89	184	525	394	2,960	639	388	560	194	89
5	79	91	110	176	525	383	2,180	532	372	550	188	93
6	77	75	99	308	514	350	1,700	489	356	480	164	93
7	77	84	101	1,180	453	285	1,400	489	340	390	141	91
8	81	85	204	1,030	477	255	1,210	652	320	330	154	88
9	83	98	74	779	495	265	1,160	926	310	290	147	85
10	79	89	105	590	495	280	1,300	800	305	260	135	81
11	79	89	124	477	815	280	1,300	706	300	235	132	77
12	77	87	175	394	950	250	1,260	786	296	215	151	90
13	77	87	218	510	842	225	1,120	723	416	200	151	81
14	75	87	310	674	695	185	998	660	532	185	130	81
15	83	77	268	590	596	180	902	590	525	175	127	85
16	85	93	214	519	545	255	814	538	530	165	121	81
17	75	89	177	459	501	296	730	488	1,270	160	110	79
18	83	87	160	483	471	366	688	441	1,620	160	127	71
19	81	91	136	465	325	420	639	400	1,300	160	204	81
20	77	89	121	429	265	500	584	366	1,000	160	177	77
21	75	91	132	394	245	483	551	345	800	147	147	75
22	73	89	130	489	230	576	519	345	660	246	157	75
23	75	87	168	552	225	712	477	315	550	754	132	79
24	73	85	184	758	225	786	441	291	470	488	121	77
25	73	80	177	646	275	793	423	282	415	325	115	70
26	71	66	142	558	335	994	429	273	410	255	108	79
27	69	76	135	584	330	1,540	429	313	460	210	105	77
28	65	77	106	597	398	1,490	423	891	800	218	108	85
29	81	76	118	538	394	1,200	394	681	580	199	110	89
30	105	86	126	719	-------	1,200	361	532	470	174	108	77
31	96	-------	109	737	-------	2,110	-------	459	-------	160	105	-------

Note.—Discharge estimated Jan. 2-4, 13-17, 20-22, Jan. 24 to Feb. 5, Feb. 21-24, Nov. 30, Dec. 1-5, 11-13, 22-26, 1929, Jan. 5, 6, 17-31, Feb. 1, 2, 6-17, Mar. 4, 5, Dec. 15-18, 23-27, 29-31, 1930, Jan. 1-3, 5-25, 30, 31, Feb. 1-5, 7-17, 21-28, Mar. 1-8, 10-13, Nov. 22, 23, 1931, Feb. 19-25, Mar. 6-16, June 19 to July 19, Sept. 6-9, 1932.

Monthly discharge, in second-feet, of Lehigh River at Tannery, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	225	132	175	0.543	0.63
November	378	157	211	.655	.73
December	695	185	286	.888	1.02
January	1,400	189	530	1.65	1.90
February	1,030	320	474	1.47	1.53
March	3,760	660	1,250	3.88	4.47
April	2,240	660	1,360	4.22	4.71
May	1,820	465	896	2.78	3.20
June	495	214	310	.963	1.07
July	402	114	177	.550	.63
August	765	97	164	.509	.59
September	686	94	227	.705	.79
The year	3,760	94	505	1.57	21.27
1929–30					
October	2,740	138	672	2.09	2.41
November	2,020	300	677	2.10	2.34
December	1,500	380	609	1.89	2.18
January	870	300	578	1.80	2.08
February	1,210	220	523	1.62	1.69
March	1,860	525	840	2.61	3.01
April	2,180	465	980	3.04	3.39
May	1,090	305	541	1.68	1.94
June	2,830	286	635	1.97	2.20
July	1,080	138	348	1.08	1.24
August	181	93	114	.354	.41
September	144	85	102	.317	.35
The year	2,830	85	551	1.71	23.24
1930–31					
October	130	71	81.2	.252	.29
November	127	54	82	.255	.28
December	217	65	111	.345	.40
January	240	70	135	.419	.48
February	400	100	179	.556	.58
March	3,550	220	741	2.30	2.65
April	1,860	429	971	3.02	3.37
May	1,700	305	889	2.76	3.18
June	786	192	403	1.25	1.40
July	2,020	167	462	1.43	1.65
August	361	154	225	.699	.81
September	214	103	158	.491	.55
The year	3,550	54	371	1.15	15.64
1931-32					
October	105	69	79.9	.248	.29
November	110	66	87.3	.271	.30
December	310	74	145	.450	.52
January	1,180	98	523	1.62	1.87
February	950	225	477	1.48	1.60
March	2,110	180	585	1.82	2.10
April	4,630	361	1,230	3.82	4.26
May	950	273	558	1.73	1.99
June	1,620	300	565	1.75	1.95
July	754	147	303	.941	1.08
August	204	105	142	.441	.51
September	108	70	83.9	.261	.29
The year	4,630	66	397	1.23	16.76

LEHIGH RIVER AT BETHLEHEM

LOCATION.—Water-stage recorder 1,500 feet above Minsi Trail Bridge, Bethlehem, Northampton County, and 2,000 feet below Monocacy Creek.

DRAINAGE AREA.—1,280 square miles.

RECORDS AVAILABLE.—October, 1928, to September, 1932. September, 1902, to February, 1905; April 1909, to September, 1928, at New Street Bridge 800 feet above mouth of Monocacy Creek (drainage area, 1,240 square miles).

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 18,400 second-feet Mar. 6 (gage height, 7.80 feet); minimum, 416 second-feet Aug. 10 (gage height, 1.78 feet).

Maximum discharge during year ending Sept. 30, 1930, 12,400 second-feet Oct. 3 (gage height, 6.50 feet); minimum, 314 second-feet Sept. 28 (gage height, 1.64 feet).

Maximum discharge during year ending Sept. 30, 1931, 9,520 second-feet Feb. 18 (gage height, 5.73 feet); minimum, 245 second-feet Nov. 29 (gage height, 1.50 feet).

Maximum discharge during year ending Sept. 30, 1932, 12,800 second-feet Apr. 1 (gage height, 6.56 feet); minimum, 228 second-feet Sept. 25 (gage height, 1.44 feet).

1902-1905, 1909-1932: Maximum discharge, 32,200 second-feet Jan. 22, 1910 (gage height, 13.78 feet): minimum, 160 second-feet Oct. 15, 1910 (gage height, 1.33 feet).

Maximum discharge known, about 86,600 second-feet Feb. 28, 1902 (gage height, 25.9 feet).

(Flow in canal not included in the above extremes).

REMARKS.—Records good. Records include flow in Lehigh Canal. Water-stage recorder, well, and shelter furnished by United States Engineer Office, Philadelphia, Pa.

Daily discharge, in second feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1,170	794	1,350	910	1,040	4,320	2,330	3,620	1,940	1,310	580	544
2	1,220	797	1,660	1,400	910	3,570	2,520	3,400	1,850	1,160	555	557
3	1,080	802	1,490	975	910	2,910	2,330	5,680	1,780	1,090	551	574
4	1,080	905	1,250	975	1,040	2,930	2,160	6,060	1,680	967	597	558
5	1,080	1,030	1,180	850	975	6,220	2,380	5,190	1,600	966	622	557
6	1,040	961	1,110	3,800	975	12,700	4,120	4,640	1,600	904	580	579
7	1,080	837	1,040	4,000	4,980	6,970	4,370	4,640	1,600	903	583	652
8	1,040	846	975	3,600	3,500	4,340	3,620	4,120	1,530	898	553	824
9	1,040	847	975	3,800	2,150	3,810	3,390	3,630	1,520	841	549	624
10	1,000	791	790	2,710	1,720	2,910	3,160	3,180	1,450	780	539	1,090
11	1,000	789	1,040	3,120	1,470	2,710	3,620	2,960	1,370	728	577	956
12	930	729	910	2,330	1,180	2,910	4,370	2,760	1,300	723	784	788
13	965	739	910	1,800	1,110	3,570	4,900	2,970	1,230	691	717	734
14	860	739	910	1,400	1,110	5,820	4,630	2,970	1,230	779	1,000	1,030
15	895	741	910	1,550	1,180	7,610	3,860	2,970	1,310	775	5,510	1,930
16	930	788	910	1,470	1,110	7,280	4,900	2,770	1,300	692	2,380	1,370
17	880	783	910	1,470	1,040	6,630	8,340	2,380	1,230	690	1,530	1,370
18	895	781	1,040	1,630	1,040	5,130	7,000	2,390	1,090	718	1,170	1,930
19	930	893	1,180	2,330	1,110	4,320	5,750	2,570	1,090	1,440	1,100	1,450
20	895	1,160	1,110	2,330	910	3,810	5,180	2,970	1,240	1,350	958	1,160
21	895	1,230	1,040	1,800	850	3,570	5,460	2,780	1,460	990	820	964
22	930	1,090	735	1,550	850	3,340	6,350	2,970	1,370	865	771	904
23	895	1,010	680	1,630	1,040	3,340	5,740	2,770	1,220	823	743	841
24	930	998	680	1,470	910	3,340	4,910	2,390	1,450	750	717	790
25	899	934	735	1,400	1,040	3,120	4,650	2,580	1,770	700	665	726
26	838	871	790	1,250	5,000	2,910	6,090	2,390	1,530	700	673	713
27	838	871	790	1,180	10,200	2,910	5,180	2,120	1,370	650	677	681
28	835	953	850	1,250	7,340	2,710	4,630	2,030	1,310	650	663	653
29	878	818	850	1,040	-------	2,520	4,640	2,390	1,770	650	632	665
30	753	937	790	975	-------	2,330	4,110	2,380	1,520	611	618	703
31	795	-------	735	1,040	-------	2,330	-------	2,210	-------	592	583	-------

Daily discharge, in second-feet, of Lehigh River at Bethlehem, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	723	1,620	1,640	2,310	1,280	3,040	2,130	1,960	2,090	1,120	619	494
2	2,980	1,540	1,760	2,260	1,420	2,850	2,080	2,180	1,940	1,440	577	529
3	10,100	1,780	1,840	2,430	1,630	2,710	1,980	2,450	1,770	2,010	569	544
4	6,050	2,340	1,540	2,620	1,630	2,510	1,950	2,120	1,660	1,590	598	529
5	4,240	2,110	1,440	2,360	1,550	2,420	1,920	2,020	1,540	1,300	575	501
6	3,270	1,950	1,540	2,220	1,610	2,420	1,790	1,880	1,500	1,190	553	457
7	2,720	1,830	1,560	2,300	1,340	2,310	5,880	1,790	1,700	1,120	549	470
8	2,330	1,770	1,750	2,320	1,380	4,520	6,820	1,680	1,750	1,020	537	617
9	2,060	1,670	2,070	2,670	1,320	5,560	5,440	1,590	1,910	1,160	512	590
10	1,820	1,580	1,890	2,570	1,360	4,850	4,480	1,500	2,850	2,380	488	545
11	1,580	1,560	1,630	2,270	1,190	4,320	4,000	1,440	5,590	1,990	546	462
12	1,490	1,500	1,340	2,200	1,150	4,850	3,540	1,420	4,450	1,500	522	441
13	1,450	1,410	1,400	2,540	1,380	4,060	3,430	1,350	3,370	1,230	597	469
14	1,390	1,340	1,840	2,940	1,950	3,720	3,650	1,400	2,810	1,190	524	655
15	1,320	1,360	2,350	3,360	1,830	3,360	3,260	2,960	2,400	1,210	551	699
16	1,230	1,470	2,350	3,210	1,440	3,120	3,330	3,180	2,140	1,150	626	652
17	1,180	1,390	2,150	2,850	1,280	2,920	4,090	2,660	1,930	1,020	603	681
18	1,110	5,000	2,250	2,540	1,410	2,820	4,350	2,290	1,860	939	582	642
19	1,040	8,180	2,900	2,220	1,470	3,360	4,220	2,360	1,790	859	531	567
20	1,030	5,740	4,020	2,150	1,950	3,220	3,890	2,500	1,660	808	516	550
21	1,060	4,490	3,600	2,330	3,040	2,830	3,510	2,260	1,530	812	509	461
22	1,200	3,680	2,960	2,370	3,550	2,540	3,320	2,120	1,420	817	470	542
23	3,740	3,140	2,790	2,100	3,480	2,300	3,060	2,010	1,380	832	544	480
24	3,440	2,850	2,440	1,700	3,390	2,260	2,830	2,040	1,290	953	603	458
25	2,650	2,740	2,460	1,780	3,210	2,300	2,660	4,030	1,300	835	676	465
26	2,180	2,480	2,350	1,680	3,570	2,740	2,540	3,760	1,320	764	563	435
27	1,910	2,360	2,280	1,600	4,010	2,920	2,360	3,160	1,420	702	601	448
28	1,750	2,320	2,310	1,780	3,480	2,620	2,180	2,860	1,510	715	546	402
29	1,570	2,150	2,780	1,820	-------	2,440	2,100	2,810	1,280	707	549	446
30	1,520	1,540	2,580	1,550	-------	2,300	2,000	2,570	1,170	668	524	464
31	1,620	-------	2,340	1,360	-------	2,300	-------	2,320	-------	625	477	-------
1930-31												
1	431	378	454	484	468	949	4,450	1,740	1,840	794	815	768
2	424	363	558	436	508	1,010	5,700	1,690	1,640	689	771	737
3	466	392	474	392	452	1,030	5,270	1,690	1,510	665	808	1,480
4	441	383	480	420	468	988	4,850	1,600	1,380	683	860	1,210
5	400	384	494	526	460	949	4,320	1,490	1,300	698	845	1,010
6	430	388	477	2,330	460	874	3,880	1,410	1,260	799	761	923
7	443	420	469	1,360	452	814	3,740	1,350	1,490	1,130	699	790
8	426	406	501	790	385	1,390	3,590	2,900	2,670	1,250	639	767
9	403	387	453	757	542	3,020	3,270	4,980	2,210	1,520	712	732
10	403	431	477	768	542	2,110	3,100	4,210	1,810	2,870	1,110	644
11	403	380	461	702	508	1,720	2,970	3,660	1,770	5,300	1,210	624
12	396	391	413	680	476	1,520	2,790	3,730	1,570	3,490	1,070	600
13	468	384	420	604	576	1,400	2,560	3,830	1,360	2,440	1,030	576
14	413	391	413	534	1,640	1,340	2,350	4,890	1,260	1,910	955	634
15	403	414	392	460	984	1,320	2,190	4,360	1,210	1,590	865	568
16	405	410	320	476	910	1,380	2,080	3,800	1,650	1,360	798	657
17	399	610	326	436	1,210	1,400	1,970	3,320	2,220	1,260	804	675
18	365	649	276	500	6,330	1,400	1,750	2,970	1,810	1,150	713	746
19	409	517	332	768	2,660	1,440	1,600	2,690	1,450	1,210	667	645
20	423	500	436	936	1,630	1,530	1,640	2,460	1,260	1,210	660	566
21	421	489	399	790	1,310	1,520	1,540	2,700	1,110	1,130	648	626
22	368	489	413	517	1,140	1,500	1,470	3,200	1,040	1,530	646	627
23	384	370	385	517	1,150	1,630	1,830	2,890	996	1,580	613	600
24	379	424	371	517	1,110	1,770	2,060	2,760	1,010	1,560	645	567
25	334	415	320	500	1,030	2,290	1,820	2,670	959	1,750	609	537
26	356	431	406	517	1,000	3,140	1,900	2,600	886	1,440	599	564
27	392	385	840	702	1,000	3,190	2,560	2,370	999	1,210	619	558
28	373	397	1,030	910	898	3,250	2,100	2,140	992	1,060	1,720	577
29	392	333	680	768	-------	6,420	1,940	1,940	859	944	1,180	514
30	395	322	594	614	-------	7,560	1,850	1,770	774	962	960	506
31	390	-------	500	585	-------	5,270	-------	1,830	-------	933	857	-------

Daily discharge, in second-feet, of Lehigh River at Bethlehem, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	471	480	518	510	1,600	1,470	11,000	2,120	1,120	1,100	587	419
2	463	454	500	500	1,750	1,350	9,030	3,330	1,160	1,370	560	383
3	458	445	438	700	1,810	1,260	7,570	2,590	1,140	1,400	580	374
4	458	424	566	900	1,910	1,270	6,720	2,260	1,130	1,320	601	383
5	461	445	544	900	2,260	1,300	5,610	2,010	1,090	1,430	575	400
6	456	385	508	1,100	1,890	1,350	4,730	1,880	1,050	1,360	553	461
7	454	409	506	2,200	1,810	1,200	4,090	2,040	1,090	1,240	643	429
8	538	377	419	3,800	1,820	1,030	3,650	2,100	968	1,080	892	400
9	554	396	437	2,500	1,840	980	3,430	2,880	868	952	631	397
10	488	415	511	2,000	1,750	960	3,340	2,590	829	885	580	348
11	412	422	627	1,300	2,050	980	3,770	2,360	793	821	579	340
12	452	388	613	1,450	2,480	980	3,590	2,560	854	763	522	402
13	412	411	696	1,500	2,370	940	3,310	2,480	1,220	744	496	396
14	406	367	965	1,700	2,150	900	3,040	2,230	1,420	695	469	593
15	409	377	1,010	1,900	1,970	890	2,780	2,070	1,320	659	513	332
16	657	392	820	1,800	1,780	924	2,600	1,950	1,250	620	453	355
17	576	399	726	1,740	1,700	1,290	2,440	1,780	2,920	612	441	330
18	463	415	675	1,710	1,600	1,460	2,280	1,670	3,260	634	513	346
19	469	415	628	1,660	1,500	1,410	2,250	1,560	2,620	625	860	388
20	461	387	595	1,550	1,400	1,550	2,000	1,460	2,090	627	711	388
21	422	371	655	1,450	1,350	1,650	1,860	1,410	1,760	666	556	372
22	589	371	626	1,450	1,300	1,740	1,810	1,390	1,610	716	539	364
23	394	420	679	1,560	1,250	2,320	1,700	1,330	1,530	1,300	486	336
24	396	413	730	1,580	1,200	2,230	1,620	1,250	1,300	1,480	484	296
25	389	386	740	1,820	1,160	2,270	1,570	1,160	1,160	1,030	452	296
26	391	378	670	1,610	1,250	2,300	1,570	1,140	1,110	819	457	370
27	377	425	510	1,640	1,240	2,970	1,570	1,320	1,190	725	460	384
28	383	404	530	1,780	1,580	7,360	1,470	1,910	1,930	682	461	375
29	454	369	540	1,630	1,690	7,760	1,400	1,830	1,570	634	481	383
30	510	473	550	1,840	-------	5,840	1,310	1,510	1,260	596	416	375
31	501	-------	530	2,180	-------	5,590	-------	1,340	-------	573	428	-------

Note.—Discharge in river estimated Jan. 6-9, July 24-29, 1929, Sept. 10-15, 1930, Dec. 24-31, 1931, Jan. 1-16, Feb. 17-20, 22-24, Mar. 7, 9-14, 1932. Discharge in Lehigh Canal estimated Nov. 12-16, 1929, Dec. 3-11, 1930, June 8-11, Nov. 26, 1931.

Monthly discharge, in second feet, of Lehigh River at Bethlehem, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	1,220	753	951	0.743	0.86
November	1,230	729	881	.688	.77
December	1,660	680	978	.764	.88
January	4,000	850	1,840	1.44	1.66
February	10,200	850	2,020	1.58	1.64
March	12,700	2,330	4,290	3.35	3.86
April	8,340	2,160	4,510	3.52	3.93
May	6,060	2,030	3,190	2.49	2.87
June	1,940	1,090	1,460	1.14	1.27
July	1,440	592	851	.665	.77
August	5,510	539	935	.730	.84
September	1,930	544	897	.701	.78
The year	12,700	539	1,900	1.48	20.13
1929-30					
October	10,100	723	2,310	1.80	2.08
November	8,180	1,340	2,500	1.95	2.18
December	4,020	1,340	2,200	1.72	1.98
January	3,360	1,360	2,270	1.77	2.04
February	4,010	1,150	2,060	1.61	1.68
March	5,560	2,260	3,110	2.43	2.80
April	6,820	1,790	3,290	2.57	2.87
May	4,030	1,350	2,280	1.78	2.05
June	5,590	1,170	2,010	1.57	1.75
July	2,380	625	1,120	.875	1.01
August	676	470	556	.434	.50
September	699	402	523	.409	.46
The year	10,100	402	2,020	1.58	21.40
1930-31					
October	468	334	404	.316	.36
November	649	322	421	.329	.37
December	1,030	276	470	.367	.42
January	2,330	392	687	.537	.62
February	6,330	385	1,080	.844	.88
March	7,560	814	2,100	1.64	1.89
April	5,700	1,470	2,770	2.16	2.41
May	4,980	1,350	2,760	2.16	2.49
June	2,670	774	1,410	1.10	1.23
July	5,300	665	1,490	1.16	1.34
August	1,720	599	835	.652	.75
September	1,480	506	701	.548	.61
The year	7,560	276	1,260	.984	13.37
1931-32					
October	657	377	455	.355	.41
November	480	367	407	.318	.35
December	1,010	419	615	.480	.55
January	3,800	500	1,630	1.27	1.46
February	2,480	1,160	1,710	1.34	1.44
March	7,760	890	2,110	1.65	1.90
April	11,000	1,310	3,440	2.69	3.00
May	3,330	1,140	1,920	1.50	1.73
June	3,260	793	1,420	1.11	1.24
July	1,480	573	908	.709	.82
August	892	416	548	.428	.49
September	461	296	374	.292	.33
The year	11,000	296	1,290	1.01	13.72

LITTLE LEHIGH CREEK AT ALLENTOWN

LOCATION.—Staff gage at Lehigh Street Bridge, Allentown, Lehigh County, 2,500 feet upstream from confluence with Jordan Creek.

DRAINAGE AREA.—106 square miles.

RECORDS AVAILABLE.—April, 1921, to January, 1932 (discontinued).

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 6.4 feet, estimated from hydrograph, Feb. 7; minimum, 0.90 foot Aug. 23.

Maximum stage during year ending Sept. 30, 1930, about 3.5 feet Oct. 2: minimum, 0.90 foot Aug. 22 and for several days in September.

Maximum stage during year ending Sept. 30, 1931, 4.80 feet Feb. 18; minimum, 0.80 foot Oct. 4, Oct. 9 to Sept. 22, Sept. 24, 25.

Maximum stage during period ending Jan. 31, 1932, 1.70 feet Jan. 7; minimum, 0.80 foot several times in October and January.

1921-1932: Maximum stage, 8.4 feet Feb. 2, 1922; minimum, 0.58 foot Aug. 26, 1923.

REMARKS.—No gage-height observations Sept. 9-28, 1929, and Aug. 16, 1931. Station maintained in cooperation with the American Steel & Wire Co., Allentown, Pa. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet
1930			1930		
August 25	1.04	50.9	September 17	1.12	83.4
25	1.04	51.7			

Daily mean gage height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1.50	1.38	1.58	1.30	1.12	1.80	1.28	1.72	1.30	1.18	1.05	1.05
2	1.48	1.38	1.30	1.58	1.10	1.52	1.25	1.78	1.30	1.15	1.08	1.02
3	1.40	1.38	1.30	1.20	1.10	1.40	1.22	2.45	1.28	1.12	1.08	1.02
4	1.48	1.50	1.25	1.10	1.10	1.35	1.22	1.90	1.25	1.15	1.10	1.00
5	1.48	1.45	1.20	1.15	1.08	2.88	1.50	1.78	1.25	1.10	1.10	1.02
6	1.48	1.42	1.18	1.80	1.60	4.60	1.48	1.70	1.30	1.10	1.05	1.08
7	1.50	1.42	1.18	1.38	5.20	2.55	1.35	1.90	1.25	1.18	1.05	1.05
8	1.48	1.32	1.20	1.08	2.00	1.50	1.33	1.70	1.32	1.13	1.00	1.50
9	1.45	1.30	1.20	1.10	1.22	1.60	1.18	1.58	1.30	1.10	1.02	-------
10	1.42	1.30	1.20	1.60	1.18	1.40	1.28	1.60	1.28	1.10	1.00	-------
11	1.42	1.30	1.20	1.42	1.18	1.42	1.22	1.60	1.20	1.08	1.10	-------
12	1.42	1.32	1.18	1.22	1.05	1.38	1.70	1.55	1.18	1.08	1.10	-------
13	1.42	1.35	1.12	1.18	1.08	1.40	1.52	1.60	1.15	1.05	1.09	-------
14	1.40	1.30	1.12	1.12	1.05	1.62	1.32	1.60	1.12	1.10	1.15	-------
15	1.45	1.30	1.10	1.10	1.05	1.60	1.31	1.58	1.38	1.10	1.60	-------
16	1.88	1.30	1.10	1.08	1.08	1.62	2.05	1.50	1.30	1.05	1.18	-------
17	1.40	1.30	1.10	1.10	1.08	1.52	2.90	1.50	1.28	1.08	1.10	-------
18	1.40	1.25	1.12	1.08	1.10	1.40	2.00	1.50	1.18	1.08	1.10	-------
19	1.45	1.30	1.10	1.30	1.10	1.42	1.62	1.55	1.18	1.48	1.08	-------
20	1.45	1.35	1.08	1.20	1.10	1.38	1.60	1.66	1.15	1.18	1.05	-------
21	1.40	1.25	1.08	1.20	1.10	1.32	1.70	1.55	1.15	1.12	1.02	-------
22	1.40	1.25	1.10	1.15	1.10	1.35	1.82	1.50	1.18	1.15	1.02	-------
23	1.40	1.20	1.15	1.22	1.10	1.35	1.62	1.40	1.25	1.15	.98	-------
24	1.40	1.20	1.10	1.15	1.08	1.35	1.52	1.35	1.20	1.10	1.08	-------
25	1.40	1.20	1.10	1.20	1.10	1.30	1.70	1.38	1.12	1.10	1.08	-------
26	1.40	1.20	1.12	1.20	3.60	1.28	4.10	1.40	1.30	1.10	1.08	-------
27	1.40	1.10	1.15	1.20	5.05	1.20	2.55	1.38	1.12	1.10	1.05	-------
28	1.48	1.10	1.10	1.20	3.20	1.20	2.02	1.28	1.18	1.10	1.08	-------
29	1.45	1.10	1.10	1.20	-------	1.20	2.08	1.30	1.30	1.10	1.02	1.10
30	1.45	1.12	1.05	1.20	-------	1.20	1.80	1.30	1.20	1.08	1.02	1.10
31	1.35	-------	1.05	1.15	-------	1.30	-------	1.28	-------	1.08	1.02	-------

Daily mean gage height, in feet, of Little Lehigh Creek at Allentown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1.08	1.08	1.12	1.28	1.18	1.40	1.28	1.18	1.20	1.08	0.98	1.00
2	2.25	1.15	1.08	1.20	1.20	1.40	1.28	1.20	1.20	1.08	.98	1.00
3	2.80	1.32	1.12	1.28	1.18	1.35	1.25	1.22	1.18	1.08	1.00	1.02
4	1.25	1.35	1.15	1.28	1.22	1.30	1.28	1.20	1.12	1.10	1.00	.95
5	1.20	1.20	1.18	1.25	1.42	1.28	1.28	1.18	1.12	1.10	1.00	.95
6	1.18	1.08	1.20	1.25	1.30	1.28	1.30	1.18	1.12	1.10	1.00	.98
7	1.18	1.10	1.15	1.20	1.22	1.50	2.20	1.40	1.10	1.10	.98	1.00
8	1.12	1.12	1.28	1.20	1.20	2.00	1.60	1.15	1.20	1.08	.98	1.02
9	1.08	1.12	1.25	1.25	1.22	1.70	1.40	1.15	1.18	1.02	.98	.98
10	1.12	1.10	1.12	1.25	1.20	1.40	1.35	1.15	1.38	1.12	1.00	.98
11	1.12	1.10	1.20	1.25	1.20	1.45	1.35	1.15	1.20	1.05	.98	1.05
12	1.15	1.08	1.20	1.30	1.22	1.55	1.35	1.10	1.15	1.08	.98	1.00
13	1.18	1.08	1.20	1.20	1.25	1.40	1.35	1.10	1.12	1.10	.98	.98
14	1.15	1.08	1.25	1.35	1.58	1.38	1.38	1.15	1.10	1.02	.98	1.00
15	1.15	1.12	1.30	1.48	1.35	1.32	1.35	1.35	1.15	1.02	1.05	1.00
16	1.10	1.12	1.22	1.28	1.30	1.38	1.42	1.20	1.15	1.00	1.02	.98
17	1.08	1.18	1.25	1.20	1.25	1.32	1.40	1.22	1.10	1.00	1.05	1.10
18	1.12	2.12	1.20	1.28	1.22	1.35	1.40	1.12	1.12	1.00	1.00	1.00
19	1.15	1.78	1.42	1.20	1.22	1.42	1.38	1.25	1.10	1.00	.98	1.00
20	1.15	1.25	1.25	1.20	1.28	1.38	1.35	1.15	1.10	1.05	.98	1.05
21	1.12	1.18	1.25	1.22	1.32	1.32	1.30	1.15	1.10	1.02	.98	1.00
22	1.22	1.20	1.18	1.25	1.35	1.32	1.32	1.10	1.15	1.02	.95	.98
23	1.35	1.18	1.20	1.25	1.32	1.32	1.30	1.10	1.10	1.02	1.10	1.02
24	1.15	1.20	1.20	1.22	1.25	1.28	1.30	1.15	1.08	.98	1.02	.98
25	1.10	1.20	1.20	1.22	1.38	1.30	1.25	1.70	1.10	1.02	1.00	.95
26	1.12	1.10	1.25	1.22	1.45	1.38	1.30	1.25	1.05	1.00	.98	.98
27	1.15	1.08	1.25	1.22	1.50	1.30	1.30	1.20	1.10	1.00	.98	.98
28	1.10	1.20	1.32	1.20	1.38	1.28	1.22	1.22	1.08	1.00	.98	1.02
29	1.08	1.15	1.38	1.28	-------	1.28	1.28	1.20	1.10	.98	1.00	.95
30	1.15	1.15	1.22	1.22	-------	1.30	1.20	1.22	1.08	1.00	1.00	.98
31	1.15	-------	1.25	1.18	-------	1.25	-------	1.22	-------	1.00	1.02	-------
1930-31												
1	.98	1.00	.98	1.02	1.00	1.12	1.20	1.18	1.10	.90	1.02	1.08
2	1.00	1.00	.98	.95	1.00	1.10	1.62	1.15	1.18	.90	1.05	1.08
3	.98	.98	.95	.98	.95	1.10	1.22	1.20	1.12	.90	1.05	1.22
4	.85	.98	.95	.98	.95	1.10	1.25	1.18	1.05	.92	1.05	1.08
5	1.00	.98	.98	1.02	.98	1.10	1.20	1.15	1.08	.95	1.02	1.08
6	.95	.95	1.05	2.45	1.00	1.10	1.15	1.08	1.10	.98	1.05	1.08
7	.90	.98	1.05	1.15	1.00	1.10	1.15	1.18	1.10	1.00	1.02	1.05
8	.90	1.05	1.02	1.05	1.00	1.35	1.15	1.32	1.72	1.08	1.05	1.08
9	.90	1.00	1.00	1.05	1.10	1.40	1.15	1.35	1.15	.98	1.02	1.05
10	.92	1.00	1.02	1.05	1.15	1.22	1.10	1.20	1.12	1.88	1.06	1.08
11	.95	.95	1.00	1.08	1.10	1.10	1.15	1.12	1.08	1.55	1.22	1.00
12	1.00	.98	.98	1.08	1.05	1.10	1.10	1.10	1.05	1.18	1.15	1.00
13	.98	.98	1.00	1.00	1.08	1.05	1.12	1.20	1.02	1.12	1.10	.92
14	.95	.95	1.05	.95	2.75	1.12	1.15	1.35	1.08	1.05	1.05	.98
15	1.00	1.02	1.05	.95	1.20	1.15	1.10	1.25	1.05	1.10	1.05	.92
16	.95	1.08	1.00	.95	1.08	1.10	1.10	1.22	1.10	1.08	-------	.88
17	.98	1.05	1.02	.95	1.05	1.08	1.12	1.20	1.52	1.10	1.08	.92
18	1.00	1.15	1.00	1.02	4.05	1.22	1.12	1.20	1.20	1.10	1.08	.92
19	1.00	1.08	.95	1.58	1.30	1.12	1.15	1.05	1.08	1.10	1.08	.92
20	.98	1.02	1.02	1.30	1.15	1.12	1.18	1.10	1.10	1.10	1.08	.92
21	.90	.95	1.05	1.10	1.12	1.12	1.08	1.28	1.08	1.10	1.02	.95
22	.92	.98	1.00	1.05	1.12	1.15	1.08	1.20	1.10	1.10	1.05	.85
23	.90	1.00	1.00	.98	1.10	1.12	1.15	1.22	1.08	1.08	1.08	.90
24	.90	.98	1.02	1.02	1.10	1.12	1.15	1.20	1.10	1.10	1.02	.85
25	.95	.92	1.05	1.00	1.08	1.18	1.20	1.15	1.02	1.10	1.02	.85
26	1.00	.95	1.02	.98	1.10	1.15	1.20	1.08	.98	1.10	1.02	.88
27	.98	.95	1.40	.98	1.08	1.15	1.22	1.08	1.00	1.05	1.05	.88
28	.98	.95	1.18	1.05	1.10	1.20	1.12	1.12	.95	1.08	1.08	.88
29	.98	.98	1.08	1.02	-------	1.82	1.22	1.08	.95	1.00	1.05	.88
30	.95	1.02	.99	.95	-------	1.30	1.12	1.08	.90	1.02	1.08	.85
31	.95	-------	.92	1.02	-------	1.12	-------	1.10	-------	1.02	1.02	-------

Daily mean gage height, in feet, of Little Lehigh Creek at Allentown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Day	Oct.	Nov.	Dec.	Jan.
1931-32					1931-32				
1	0.90	0.95	0.92	1.05	16	0.92	0.98	0.92	0.92
2	.90	.92	.95	.95	17	.92	.92	.90	.92
3	.90	.90	.92	1.02	18	.90	.92	.90	.95
4	.88	.92	.95	.90	19	.90	.98	.88	.88
5	.88	.92	.95	.85	20	.90	.92	.90	.90
6	.62	.90	.95	1.00	21	.85	.92	.90	.88
7	.92	.92	.98	1.60	22	.85	.95	.95	.85
8	.88	.98	.92	1.08	23	.88	.95	.90	.92
9	.98	.95	.98	1.05	24	.92	.95	.90	.90
10	.95	.92	.92	1.02	25	.95	.98	1.00	.88
11	.92	.88	.95	.95	26	.95	.88	.90	.88
12	.98	.92	.95	.92	27	.92	.95	.90	.90
13	.90	.92	.90	.88	28	.85	.88	.90	.92
14	.90	.92	.92	.90	29	.92	.95	.88	.82
15	.92	.95	.88	.90	30	.90	.98	.90	.90
					31	.92	-------	.85	.92

DELAWARE BASIN—STATION NO. 13

NESHAMINY CREEK AT RUSHLAND*

LOCATION.—Chain gage at highway bridge one-fourth mile west of railroad station at Rushland, Bucks County.

DRAINAGE AREA.—135 square miles.

RECORDS AVAILABLE.—June, 1994, to December, 1912; July, 1931, to September 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1931, 531 second-feet Aug. 11 (gage height, 4.50 feet); minimum, 8.4 second-feet Sept. 24 (gage height, 1.90 feet).

Maximum stage during year ending Sept. 30, 1932, 15.24 feet Mar. 28 (discharge not determined); minimum discharge, 1.7 second-feet Sept. 26 (gage height, 1.73 feet, affected by backwater from grass).

1931-32: Maximum stage, that of Mar. 28, 1932, minimum discharge, that of Sept. 26, 1932.

REMARKS.—Records fair except those above 500 second-feet and those for estimated periods, which may be poor. Discharge estimated Aug. 3-5, 7, 1931, because of unsatisfactory gage-height record, and Aug. 29 to Sept. 30, 1932, because of backwater from aquatic growth. Gage-height observer paid by Pennsylvania Department of Health.

Daily discharge, in second-feet, 1931-1932.

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	July	Aug.	Sept.
1931			1931			1931			
1	49	16	11	346	13	21	-------	25	10
2	38	14	12	122	15	22	-------	23	10
3	32	37	13	66	13	23	-------	23	10
4	28	69	14	57	13	24	-------	41	8.9
5	37	35	15	65	13	25	-------	41	8.9
6	32	22	16	52	11	26	-------	31	13
7	77	16	17	50	11	27	-------	23	13
8	14	19	18	28	11	28	-------	22	16
9	15	18	19	28	11	29	-------	23	15
10	24	16	20	25	10	30	58	23	10
						31	54	16	-------

*Published 1884-1912 as Neshaminy Creek below the Forks, near Rushland.

Daily discharge, in second-feet, of Neshaminy Creek at Rushland, 1931-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	89	140	13	27	99	53	533	198	26	180	93	64
2	76	100	11	298	104	49	318	184	25	190	93	52
3	64	89	11	253	106	42	239	106	24	130	120	44
4	64	89	12	111	118	40	181	82	25	140	140	37
5	64	81	24	76	375	38	160	67	25	150	110	41
6	64	75	32	176	170	155	160	62	23	180	85	48
7	69	75	22	1,060	140	426	140	67	24	160	85	46
8	69	69	14	360	140	160	127	69	23	140	1,730	89
9	110	64	15	600	122	140	140	104	20	110	530	35
10	210	64	31	498	96	111	849	88	16	72	220	35
11	150	75	40	291	115	85	628	70	16	61	180	39
12	97	75	29	192	118	67	466	95	20	46	150	30
13	89	75	24	181	120	67	291	390	23	39	97	32
14	69	75	22	150	88	51	204	170	30	37	81	30
15	100	89	20	140	76	46	181	108	67	35	64	32
16	110	88	18	124	73	63	150	91	69	33	52	41
17	110	78	16	103	88	93	140	72	101	42	50	26
18	100	78	16	88	113	173	129	61	72	41	55	28
19	97	72	14	77	82	91	117	54	56	39	640	28
20	89	100	15	74	72	86	106	50	31	39	390	26
21	81	89	14	70	53	88	99	46	26	64	220	28
22	69	89	16	66	66	350	88	52	21	260	100	26
23	64	89	10	73	62	258	79	49	18	720	72	28
24	64	78	45	93	49	170	73	39	15	530	61	26
25	64	78	38	77	49	140	72	37	13	150	52	26
26	64	72	24	67	53	131	85	35	12	100	50	20
27	64	75	21	131	53	192	99	31	22	750	44	26
28	58	85	20	140	56	3,190	79	73	131	1,840	52	37
29	100	93	21	103	54	504	63	60	66	740	61	35
30	160	120	12	160	-------	291	58	30	26	250	72	39
31	150	-------	14	150	-------	252	-------	28	-------	140	64	-------

Monthly discharge, in second-feet, of Neshaminy Creek at Rushland, 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1931					
July, 30-31	58	54	56.0	0.415	0.03
August	346	14	47.6	.353	.41
September	69	8.9	16.6	.123	.14
1931-32					
October	21	5.8	9.12	.068	.08
November	14	6.4	8.39	.062	.07
December	45	11	20.8	.154	.18
January	1,060	27	19.4	1.44	1.66
February	375	49	100	.741	.80
March	3,190	38	245	1.81	2.09
April	849	58	202	1.50	1.67
May	390	28	86.1	.638	.74
June	131	12	35.5	.263	.29
July	184	3.3	23.9	.177	.20
August	173	4.4	18.8	.139	.16
September	8.9	2.0	3.65	.027	.03
The year	3,190	2.0	79.0	.585	7.97

SCHUYLKILL RIVER AT READING

LOCATION.—Chain gage at Penn Street Bridge, Reading, Berks County. Zero of gage is 188.50 feet above mean sea level.

DRAINAGE AREA.—900 square miles.

RECORDS AVAILABLE.—May, 1914, to September, 1931 (discontinued).

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 20,700 second-feet Mar. 6 (gage height, estimated from hydrograph, 11.0 feet); minimum, 228 second-feet July 31, Aug. 1, 3 (gage height, –0.75 foot).

Maximum discharge during year ending Sept. 30, 1930, about 15,400 second-feet Oct. 2 (gage height, about 9.0 feet); minimum, 82 second-feet Aug. 12 (gage height, –1.19 feet).

1914-1931: Maximum discharge, about 38,300 second-feet Oct. 1, 1924 (gage height, estimated from hydrograph, 16.5 feet); minimum, that of Aug. 12, 1930.

(Extremes do not include flow in Schuylkill Canal).

REMARKS.—Records for 1929 and 1930 probably fair. Stage-discharge relation affected by ice Dec. 2-4, 23-27, 1929, Jan. 20-31, Feb. 2, 3, 1930. Discharge records do not include water diverted past gage through Schuylkill Canal. Owing to shifting channel conditions, no records are published after Sept. 30, 1930.

Daily discharge, in second-feet, 1928-1930.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	550	420	990	496	607	4,570	1,070	2,680	1,070	667	231	280
2	550	420	698	1,150	607	3,900	990	2,680	990	636	249	268
3	522	420	578	578	522	2,800	990	3,510	910	522	238	249
4	496	470	550	578	607	2,680	910	4,030	872	445	249	261
5	496	698	496	445	470	6,050	1,150	3,640	799	496	288	268
6	731	522	470	2,450	578	12,600	1,600	3,510	764	445	272	372
7	578	470	396	2,120	3,640	6,740	1,330	3,150	764	445	245	350
8	496	420	445	1,330	3,390	4,030	1,240	2,680	764	420	245	1,150
9	445	420	445	1,510	1,900	3,390	1,150	2,450	764	420	306	2,800
10	445	420	288	2,230	1,240	2,560	1,150	2,230	698	420	420	1,600
11	445	420	445	2,910	910	2,340	1,240	1,900	667	420	264	799
12	496	445	396	1,800	578	2,340	1,600	1,900	667	318	318	522
13	420	420	470	1,420	578	2,340	2,120	1,800	607	327	327	470
14	420	420	470	1,510	636	3,150	2,010	1,600	578	297	350	910
15	396	420	550	1,240	764	3,640	1,900	1,800	731	350	3,770	1,700
16	445	420	522	990	636	3,900	3,270	1,600	834	323	1,240	1,150
17	496	396	522	910	550	3,510	7,850	1,420	607	293	731	1,700
18	470	420	607	1,070	607	2,910	6,210	1,240	578	306	522	2,680
19	496	420	698	1,700	636	2,560	4,840	1,420	496	990	522	1,700
20	396	698	470	1,510	496	2,560	3,770	1,600	667	799	396	1,150
21	420	578	470	910	318	2,120	3,640	1,420	990	372	396	990
22	420	550	306	764	420	2,010	3,900	1,510	799	350	327	799
23	350	522	396	910	522	2,010	3,390	1,240	834	327	372	698
24	470	445	396	910	522	1,800	2,910	1,240	990	350	310	636
25	445	420	396	872	550	1,600	2,910	1,240	1,150	318	306	550
26	420	372	445	496	6,210	1,600	5,270	1,150	1,510	314	323	496
27	396	350	445	607	13,400	1,510	4,430	1,150	872	310	350	522
28	445	396	496	731	7,660	1,420	3,770	1,240	698	280	327	470
29	420	396	470	470	-------	1,240	3,900	1,900	872	284	318	470
30	420	470	350	327	-------	1,150	3,270	1,420	764	249	288	578
31	420	-------	372	496	-------	1,240	-------	1,240	-------	238	272	-------

Daily discharge, in second-feet, of Schuylkill River at Reading, 1928-1930—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	500	755	620	1,700	720	3,510	1,330	1,070	870	369	181	154
2	5,270	632	800	1,600	750	3,150	1,330	1,070	792	472	218	154
3	11,200	990	800	1,900	850	2,680	1,240	1,070	792	472	166	248
4	6,050	1,510	800	2,120	990	2,120	1,240	910	720	369	163	229
5	4,030	1,240	910	1,900	1,600	2,010	1,150	830	632	369	143	157
6	2,910	1,070	990	1,800	1,420	1,900	1,150	792	620	369	146	152
7	2,450	990	990	1,800	990	1,700	7,850	685	792	393	121	152
8	1,900	990	1,070	1,700	1,070	3,270	5,410	685	632	345	118	172
9	1,510	910	1,240	1,700	910	3,510	4,160	620	870	324	149	248
10	1,330	870	990	1,600	990	3,030	3,510	590	1,240	369	124	169
11	1,150	830	910	1,330	755	3,030	2,910	560	1,330	472	135	181
12	1,070	830	590	1,330	830	3,510	2,450	560	870	345	98	127
13	990	792	792	1,700	1,150	2,800	2,560	500	755	303	102	175
14	910	830	990	1,700	2,340	2,450	2,230	590	632	324	127	283
15	870	870	1,330	2,560	2,230	2,120	1,900	1,330	620	303	169	233
16	792	830	1,240	2,450	1,600	2,120	2,010	1,420	590	263	445	211
17	755	720	1,150	2,010	1,330	1,900	2,450	990	560	255	369	620
18	685	4,430	1,240	2,010	1,510	1,800	2,230	830	990	255	222	252
19	632	7,480	1,700	1,510	1,510	2,340	2,230	990	1,150	248	181	181
20	620	4,840	2,340	1,330	2,010	1,800	2,010	1,420	870	255	169	129
21	620	3,510	1,800	1,180	2,680	1,600	1,900	1,070	720	208	146	163
22	792	2,560	1,600	1,080	2,560	1,420	1,900	1,070	685	222	149	154
23	1,510	2,230	1,350	1,000	2,450	1,330	1,700	910	590	211	154	154
24	792	2,010	1,220	950	2,450	1,330	1,600	910	590	345	172	149
25	792	2,010	1,170	880	3,030	1,330	1,510	2,340	590	218	172	140
26	685	1,600	1,150	830	3,270	2,010	1,330	1,700	530	218	154	137
27	632	1,600	1,200	800	4,840	2,120	1,240	1,510	560	218	194	134
28	620	1,510	1,420	770	4,160	1,800	1,150	1,330	500	197	200	131
29	590	1,150	1,900	740	-------	1,700	1,150	1,510	419	181	187	130
30	590	530	1,700	720	-------	1,600	1,070	1,150	369	175	146	130
31	830	-------	1,510	720	-------	1,510	-------	910	-------	172	140	-------

Monthly discharge, in second-feet, of Schuylkill River at Reading, 1928-1930.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	731	350	465	0.517	0.60
November	698	350	455	.506	.56
December	990	288	485	.539	.62
January	2,910	327	1,140	1.27	1.46
February	13,400	318	1,770	1.97	2.05
March	12,600	1,150	3,110	3.46	3.99
April	7,850	910	2,790	3.10	3.46
May	4,030	1,150	1,990	2.21	2.55
June	1,510	496	810	.900	1.00
July	990	238	411	.457	.53
August	3,770	231	477	.530	.61
September	2,800	249	886	.984	1.10
The year	13,400	231	1,230	1.37	18.53
1929-30					
October	11,200	500	1,740	1.93	2.22
November	7,480	530	1,700	1.89	2.11
December	2,340	590	1,210	1.34	1.54
January	2,560	720	1,470	1.63	1.88
February	4,840	720	1,820	2.02	2.10
March	3,510	1,330	2,210	2.46	2.84
April	7,850	1,070	2,200	2.44	2.72
May	2,340	500	1,030	1.14	1.31
June	1,330	369	729	.810	.90
July	472	172	298	.331	.38
August	445	98	178	.192	.22
September	620	127	188	.209	.23
The year	11,200	98	1,230	1.37	18.45

SCHUYLKILL RIVER AT POTTSTOWN

LOCATION.—Water-stage recorder at Hanover Street Bridge, Pottstown, Montgomery County. Zero of gage is 117.81 feet above mean sea level.

DRAINAGE AREA.—1,170 square miles.

RECORDS AVAILABLE.—August, 1927, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 20,600 second-feet Feb. 27 (gage height, 11.44 feet); minimum, 300 second-feet July 13 (gage height, 0.94 foot).

Maximum discharge during year ending Sept. 30, 1930, 16,400 second-feet Oct. 3 (gage height, 9.71 feet); minimum, 87 second-feet Aug. 13 (gage height, 0.43 foot).

Maximum discharge during year ending Sept. 30, 1931, 7,320 second-feet July 11 (gage height, 5.81 feet); minimum, 97 second-feet Oct. 20 (gage height, 0.46 foot).

Maximum discharge during year ending Sept. 30, 1932, 15,100 second-feet Mar. 28 (gage height, 9.17 feet); minimum, 117 second-feet Sept. 17 (gage height, 0.52 foot).

1927-1932: Maximum discharge, that of Feb. 27, 1929; minimum, that of Aug. 13, 1930.

REMARKS.—Records good except those for high stages and for estimated periods, which are fair. Diurnal fluctuation during low stages caused by operation of mills upstream. Gage-height observer paid by Pennsylvania Department of Health.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	820	570	1,050	910	735	5,980	1,420	3,000	1,260	865	353	353
2	778	535	1,000	1,770	692	4,210	1,260	2,850	1,100	820	378	328
3	692	468	778	1,050	692	3,660	1,260	4,210	1,050	735	378	353
4	692	692	692	820	650	3,490	1,150	4,590	1,050	650	353	353
5	692	820	650	735	650	6,700	1,360	3,840	1,000	650	435	353
6	1,200	778	610	2,280	610	16,100	1,770	3,490	1,000	610	378	378
7	865	535	535	2,700	4,210	8,600	1,650	3,660	955	570	353	468
8	735	570	500	1,770	4,780	4,970	1,480	3,000	1,100	570	353	910
9	692	535	535	1,530	2,280	4,210	1,480	2,550	1,050	570	435	2,410
10	692	468	500	2,280	1,530	3,160	1,480	2,280	955	535	435	2,020
11	610	500	535	3,490	1,200	2,850	1,480	2,150	910	535	406	1,000
12	610	535	535	2,020	910	2,700	2,150	2,020	865	500	378	692
13	610	535	535	1,590	778	2,700	2,550	2,020	820	468	735	570
14	610	570	570	1,300	778	3,160	2,280	1,890	778	435	2,020	610
15	610	570	692	1,200	865	4,020	2,150	1,890	1,000	435	3,490	1,770
16	500	500	650	1,100	910	4,210	4,590	1,770	1,000	435	1,770	1,310
17	570	535	610	1,100	820	3,840	9,480	1,650	820	406	1,000	1,200
18	692	468	650	1,150	778	3,160	7,320	1,590	735	435	692	2,550
19	650	535	820	1,530	778	2,850	5,360	1,890	692	692	610	1,770
20	650	735	692	1,770	735	2,550	4,400	1,890	778	1,100	570	1,310
21	535	910	570	1,200	1,000	2,410	4,210	1,770	1,100	570	535	1,100
22	468	820	435	955	910	2,150	4,590	1,770	1,050	468	500	955
23	468	692	435	1,100	650	2,150	4,020	1,590	1,000	468	500	865
24	535	610	468	1,100	692	2,020	3,320	1,480	820	468	435	778
25	778	500	500	1,050	735	1,890	3,160	1,480	1,480	406	435	692
26	570	500	500	820	6,300	1,770	5,560	1,420	1,650	468	406	650
27	468	468	570	778	16,400	1,770	4,970	1,360	1,150	468	378	610
28	435	500	500	820	10,200	1,590	4,020	1,310	910	378	468	650
29	500	500	610	820	-------	1,530	4,020	2,020	1,000	406	435	650
30	500	535	500	735	-------	1,420	3,490	1,650	955	435	406	78
31	500	-------	500	735	-------	1,480	-------	1,480	-------	353	378	-------

Daily discharge, in second-feet, of Schuylkill River at Pottstown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	736	986	922	1,940	1,000	3,720	1,560	1,270	1,140	607	299	239
2	6,170	910	1,000	1,880	1,080	3,300	1,520	1,260	1,070	736	288	309
3	13,600	1,590	1,000	2,080	1,160	2,900	1,460	1,240	986	690	288	304
4	6,860	1,940	1,000	2,200	1,320	2,400	1,410	1,180	919	585	283	380
5	4,360	1,570	1,080	2,080	2,400	2,200	1,340	1,050	856	544	230	299
6	3,220	1,360	1,090	1,940	2,080	2,140	1,340	1,030	820	558	283	294
7	2,610	1,290	1,090	1,940	1,510	2,010	6,390	976	882	622	232	234
8	2,180	1,200	1,150	1,880	1,390	6,380	5,900	938	910	575	222	288
9	1,880	1,120	1,410	1,880	1,340	4,220	4,350	873	1,080	491	216	288
10	1,620	1,060	1,200	1,820	1,330	3,300	3,470	864	1,410	478	231	325
11	1,460	1,020	1,050	1,600	1,260	3,060	2,980	786	1,760	652	310	288
12	1,320	995	886	1,520	1,190	3,720	2,610	778	1,190	558	221	228
13	1,220	957	887	1,790	1,710	2,980	2,400	761	986	446	196	270
14	1,150	986	1,310	2,540	2,760	2,610	2,400	811	919	440	229	565
15	1,080	1,020	1,500	3,060	2,610	2,340	2,140	1,510	811	440	258	465
16	1,040	1,010	1,430	2,680	2,010	2,200	2,080	1,880	811	416	622	410
17	948	938	1,310	2,340	1,700	2,140	2,610	1,290	778	380	714	987
18	891	4,680	1,430	2,140	1,760	2,080	2,470	1,110	910	358	400	600
19	820	7,750	1,820	1,750	1,880	2,470	2,340	1,150	1,390	358	330	440
20	786	5,050	2,180	1,630	2,200	2,270	2,270	1,560	1,090	352	325	364
21	761	3,720	2,010	1,500	2,680	1,880	2,080	1,420	976	330	314	276
22	1,000	2,980	1,700	1,400	2,680	1,700	2,080	1,240	873	369	242	252
23	1,540	2,470	1,400	1,300	2,540	1,580	1,940	1,170	829	392	330	330
24	1,290	2,200	1,320	1,230	2,540	1,560	1,820	1,300	778	416	262	271
25	986	2,080	1,300	1,160	3,530	1,530	1,700	2,940	786	452	325	336
26	891	1,940	1,300	1,100	3,580	1,940	1,590	2,270	778	369	309	347
27	820	1,700	1,380	1,060	5,110	2,270	1,510	1,700	811	330	320	330
28	803	1,640	1,620	1,030	4,260	1,880	1,420	1,590	720	320	325	320
29	761	1,530	2,210	1,020	-------	1,760	1,360	1,700	644	325	320	321
30	804	1,040	2,010	1,000	-------	1,760	1,310	1,450	622	309	304	262
31	959	-------	1,820	1,000	-------	1,700	-------	1,240	-------	304	294	-------
1930-31												
1	241	246	300	364	376	578	3,270	803	900	456	551	504
2	240	288	453	300	349	636	4,400	820	873	464	497	748
3	262	248	369	260	325	622	3,380	873	786	454	504	2,610
4	248	268	314	260	304	564	2,980	847	687	410	517	1,300
5	249	249	294	400	299	509	2,540	761	651	434	521	838
6	245	278	347	2,550	309	515	2,140	713	607	476	452	697
7	272	254	358	1,860	320	466	2,010	1,000	647	1,130	428	600
8	228	258	347	714	226	1,290	2,080	2,660	4,800	2,110	410	530
9	256	247	336	622	388	3,250	1,700	3,900	2,310	1,170	429	497
10	258	249	314	593	754	2,080	1,500	3,340	1,520	3,910	831	459
11	260	254	309	510	605	1,490	1,380	2,830	1,320	6,280	4,030	446
12	264	254	260	480	552	1,220	1,240	2,400	1,090	3,440	1,510	446
13	238	261	283	440	612	1,060	1,130	2,650	938	2,180	1,070	440
14	251	276	294	400	1,810	976	1,050	3,900	829	1,690	838	392
15	246	310	213	360	1,320	928	986	3,470	778	1,680	713	392
16	268	358	200	340	905	910	928	2,830	967	1,260	636	457
17	250	392	184	340	1,040	1,000	882	2,400	2,470	1,030	585	460
18	274	673	294	468	5,200	1,060	864	2,140	1,470	972	524	459
19	309	484	274	1,290	2,880	1,100	794	1,820	1,080	1,040	504	428
20	202	386	273	2,070	1,600	1,170	770	1,640	928	948	478	398
21	258	358	272	1,120	1,220	1,120	720	1,710	803	1,080	478	375
22	254	316	248	678	986	1,130	678	1,850	720	1,350	452	364
23	248	292	240	562	864	1,130	916	1,620	1,220	1,420	530	358
24	248	291	244	523	794	1,060	1,090	1,580	972	1,460	585	321
25	252	310	328	451	736	1,130	722	1,320	753	1,300	520	330
26	222	317	260	420	674	1,290	821	1,240	644	986	440	352
27	255	300	1,330	518	629	1,180	1,220	1,110	607	770	498	369
28	270	280	1,900	697	600	1,100	1,120	1,000	564	682	806	392
29	352	274	976	649	-------	3,950	948	910	517	629	1,080	347
30	280	302	644	537	-------	4,350	919	838	497	644	778	314
31	285	-------	518	426	-------	3,300	-------	829	-------	636	593	-------

Daily discharge, in second-feet, of Schuylkill River at Pottstown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	309	416	487	827	1,020	1,060	7,530	1,660	820	690	336	387
2	309	369	522	2,180	1,070	938	6,180	2,990	882	754	336	384
3	304	341	351	2,200	1,220	910	5,110	2,030	882	697	369	358
4	299	299	374	1,760	1,410	891	4,080	1,700	829	682	369	314
5	254	323	630	1,460	2,190	882	3,300	1,580	820	770	404	273
6	283	288	564	2,400	1,780	956	2,980	1,540	856	753	398	341
7	254	288	392	5,990	1,630	1,310	2,680	1,660	803	761	480	336
8	592	299	382	4,730	1,600	942	2,400	1,990	720	713	1,650	247
9	1,270	333	317	4,260	1,530	1,000	2,270	3,040	690	600	870	238
10	639	344	532	3,220	1,390	892	3,020	3,140	644	551	526	221
11	434	338	717	2,540	1,410	888	3,380	2,830	622	506	472	230
12	375	254	738	2,200	1,430	930	2,900	3,140	636	484	442	191
13	330	296	659	1,940	1,320	1,000	2,540	3,380	847	468	364	204
14	320	312	728	2,080	1,170	928	2,400	2,830	1,000	455	314	216
15	347	299	720	1,760	1,090	788	2,200	2,540	938	416	317	224
16	556	309	652	1,590	1,050	719	2,080	2,340	890	398	340	234
17	553	309	571	1,440	1,090	1,030	1,880	2,010	3,770	398	295	218
18	404	309	530	1,360	1,280	1,590	1,760	1,820	2,580	380	372	214
19	364	341	504	1,290	1,130	1,500	1,700	1,700	1,560	375	562	175
20	347	347	497	1,190	1,010	1,700	1,620	1,540	1,290	386	658	222
21	325	314	465	1,130	938	1,820	1,540	1,450	1,150	452	396	219
22	320	316	472	1,080	919	2,300	1,480	1,500	1,050	431	343	210
23	336	288	623	1,070	928	2,760	1,400	1,320	928	1,040	304	220
24	325	309	690	1,230	847	2,340	1,310	1,210	794	890	309	222
25	304	290	578	1,170	811	2,270	1,290	1,170	728	554	304	205
26	304	240	544	1,010	820	2,080	1,320	1,070	760	434	283	185
27	283	268	396	1,030	829	2,270	1,370	1,100	1,040	512	296	260
28	283	336	426	1,120	942	9,810	1,160	1,210	1,350	642	475	268
29	412	314	430	995	1,310	11,600	1,080	1,040	1,090	429	380	356
30	497	341	458	1,120	-------	7,170	1,050	948	794	408	348	318
31	452	-------	428	1,400	-------	5,750	-------	891	-------	358	294	-------

Note.—Discharge estimated because of ice Jan. 14–17, Dec. 2–4, 23–27, 1930, Jan. 21–31, Nov. 27, 28, Dec. 16, 1931, Jan. 2–4, 12, 13, 15–17, 1932.

Monthly discharge, in second-feet, of Schuylkill River at Pottstown, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	1,200	435	636	0.544	0.63
November	910	468	583	.498	.56
December	1,050	435	604	.516	.59
January	3,490	735	1,360	1.16	1.34
February	16,400	610	2,220	1.90	1.98
March	16,100	1,420	3,650	3.12	3.60
April	9,480	1,150	3,250	2.78	3.10
May	4,590	1,310	2,240	1.91	2.20
June	1,650	692	1,000	.855	.95
July	1,100	353	545	.466	.54
August	3,490	353	658	.562	.65
September	2,550	328	948	.810	.90
The year	16,400	328	1,470	1.26	17.04
1929-30					
October	13,600	736	2,080	1.78	2.05
November	7,750	910	1,960	1.68	1.87
December	2,210	886	1,380	1.18	1.36
January	3,060	1,000	1,730	1.48	1.71
February	5,110	1,000	2,160	1.85	1.93
March	6,380	1,530	2,520	2.15	2.48
April	6,390	1,310	2,330	1.99	2.22
May	2,940	761	1,300	1.11	1.28
June	1,760	622	951	.813	.91
July	736	304	458	.391	.45
August	714	196	307	.262	.30
September	987	221	354	.303	.34
The year	13,600	196	1,460	1.25	16.90
1930-31					
October	352	202	258	.221	.25
November	673	246	309	.264	.29
December	1,900	184	419	.358	.41
January	2,550	260	687	.587	.68
February	5,200	226	953	.815	.85
March	4,350	509	1,360	1.16	1.34
April	4,400	678	1,510	1.29	1.44
May	3,900	713	1,800	1.54	1.78
June	4,800	497	1,100	.940	1.05
July	6,280	410	1,370	1.17	1.35
August	4,030	410	735	.628	.72
September	2,610	314	554	.474	.53
The year	6,280	184	921	.787	10.69
1931-32					
October	1,270	254	399	.341	.39
November	416	240	314	.268	.30
December	738	317	528	.451	.52
January	5,990	827	1,900	1.62	1.87
February	2,190	811	1,210	1.03	1.11
March	11,600	719	2,290	1.96	2.26
April	7,530	1,050	2,500	2.14	2.39
May	3,380	891	1,880	1.61	1.86
June	3,770	622	1,060	.906	1.01
July	1,040	358	561	.479	.55
August	1,650	283	439	.375	.43
September	387	175	256	.219	.24
The year	11,600	175	1,110	.949	12.93

SCHUYLKILL RIVER AT NORRISTOWN

LOCATION.—Water-stage recorder at Schuylkill Navigation Co. Dam, Norristown, Montgomery County. Chain gage at DeKalb Street Bridge 800 feet downstream. Zero of chain gage is 1.59 feet below recorder datum.

DRAINAGE AREA.—1,760 square miles.

RECORDS AVAILABLE.—August, 1927, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 36,000 second-feet Feb. 27 (gage height, 12.1 feet at chain gage); minimum (estimated), 98 second-feet Jan. 30 (gage height, 0.84 foot at chain gage; affected by ice).

Maximum discharge during year ending Sept. 30, 1930, 41,200 second-feet Oct. 2 (gage height, 10.26 feet); minimum, 132 second-feet Aug. 11 (gage height, –0.19 foot).

Maximum discharge during year ending Sept. 30, 1931, 42,000 second-feet July 15 (gage height, 10.40 feet); minimum, 120 second-feet Dec. 31 (gage height, –0.26 foot).

Maximum discharge during year ending Sept. 30, 1932, 33,200 second-feet Mar. 28 (gage height, 8.83 feet); minimum, 127 second-feet Mar. 10 (gage height, –0.22 foot).

1927-1932: Maximum discharge, that of July 15, 1931; minimum, that of Jan. 30, 1929.

(Flow in canal not included in above extremes.)

REMARKS.—Records good except those for estimated periods, which are fair. Diurnal fluctuation during low stages caused by operation of mills upstream. Water-stage recorder, well, shelter, and services of observer furnished by Pennsylvania Department of Health.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1,350	620	1,860	1,050	870	9,400	1,960	3,660	1,780	1,100	487	487
2	1,190	591	1,680	3,400	1,050	7,100	1,680	3,150	1,600	1,100	487	436
3	1,120	755	1,350	1,960	870	6,400	1,430	4,800	1,520	1,020	520	389
4	1,050	930	1,190	1,430	930	5,730	1,680	5,100	1,340	885	509	427
5	1,050	1,190	1,190	1,190	810	12,100	1,680	4,210	1,340	885	465	427
6	1,510	1,120	990	3,930	1,050	24,300	2,250	4,210	1,430	1,180	531	509
7	1,430	930	990	4,500	10,400	13,300	2,150	6,060	1,340	885	465	465
8	1,120	810	930	2,460	7,320	6,740	1,860	3,930	1,340	820	418	885
9	1,050	810	870	1,770	3,150	5,100	1,770	3,150	1,430	758	542	1,970
10	810	777	870	3,400	2,680	3,930	1,680	2,910	1,340	758	553	2,760
11	930	799	766	4,500	1,960	3,660	1,860	2,460	1,260	695	695	1,600
12	870	930	930	2,910	1,430	3,400	4,800	2,360	1,180	695	1,100	1,020
13	930	799	930	2,150	1,190	3,150	4,500	2,460	1,020	635	487	758
14	960	722	930	1,860	1,050	3,930	3,150	2,460	1,020	635	4,900	885
15	930	733	1,270	1,350	1,120	5,410	2,910	2,360	1,260	695	7,730	1,880
16	870	700	1,120	1,510	1,270	5,410	13,300	2,250	1,430	564	3,010	1,780
17	810	680	1,120	1,510	1,190	4,800	18,300	2,050	1,340	635	1,430	1,340
18	870	744	1,190	1,510	1,190	3,930	10,800	1,960	1,100	531	1,100	2,290
19	990	670	1,350	1,960	1,120	3,400	7,100	4,800	1,020	885	758	2,080
20	1,050	870	1,270	2,360	1,190	3,150	5,410	4,500	1,260	1,260	758	1,600
21	930	1,120	1,050	1,680	930	2,910	4,800	2,910	1,180	1,020	635	1,260
22	870	1,120	870	1,190	870	2,680	7,100	2,910	1,520	695	635	1,100
23	799	1,050	600	1,510	930	2,680	5,730	2,460	1,260	635	695	950
24	680	1,120	711	1,510	1,120	2,680	4,210	2,150	1,100	635	695	950
25	788	990	711	1,680	1,190	2,460	3,930	2,050	1,340	635	575	820
26	930	766	810	1,270	12,900	2,250	6,400	1,960	2,400	635	564	695
27	777	722	870	990	30,100	2,250	6,400	1,860	2,880	575	498	695
28	700	733	930	1,270	16,900	2,150	4,500	1,860	1,340	575	553	695
29	810	810	1,050	870	-------	1,960	4,800	2,080	1,260	509	575	758
30	799	870	870	510	-------	1,860	4,210	2,290	1,260	575	553	758
31	870	-------	810	870	-------	1,960	-------	1,970	-------	531	465	-------

Daily discharge, in second-feet, of Schuylkill River at Norristown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1,240	1,400	1,490	2,740	1,380	4,560	1,960	1,600	1,410	759	325	335
2	16,600	1,320	1,140	2,630	1,490	4,000	1,890	1,620	1,310	869	320	327
3	21,400	2,950	1,290	2,980	1,660	3,480	1,850	1,530	1,190	911	350	309
4	9,200	4,690	1,410	3,040	1,850	3,000	1,750	1,490	1,100	733	292	372
5	5,310	2,630	1,580	2,630	4,580	2,720	1,740	1,360	984	607	357	368
6	3,480	2,080	1,530	2,390	4,420	2,610	1,680	1,310	1,020	662	231	357
7	2,900	1,870	1,580	2,370	2,650	2,540	6,610	1,270	969	869	251	327
8	2,520	1,720	1,580	2,370	2,220	10,700	8,050	1,160	1,070	706	263	313
9	2,160	1,640	1,890	2,370	2,060	7,860	5,160	1,050	1,180	656	281	313
10	1,890	1,470	1,770	2,300	2,040	4,850	3,730	1,090	1,560	619	357	320
11	1,700	1,410	1,530	2,060	1,980	3,860	3,230	1,010	2,040	631	180	350
12	1,560	1,390	1,310	1,940	1,850	4,410	2,930	947	1,660	733	293	327
13	1,430	1,350	1,250	2,200	3,580	3,730	2,720	984	1,270	607	223	357
14	1,340	1,320	2,060	3,410	7,130	3,230	2,740	1,060	1,110	515	236	334
15	1,250	1,470	2,300	6,140	4,130	2,930	2,580	1,620	1,010	536	321	570
16	1,200	1,540	2,180	3,670	2,930	2,760	2,500	2,260	940	493	422	482
17	1,110	1,380	1,960	3,040	2,580	2,670	3,000	1,720	908	472	868	725
18	1,030	6,290	3,850	2,810	2,610	2,610	3,060	1,410	869	422	598	814
19	1,010	10,800	5,950	2,700	2,720	3,200	3,040	1,310	1,440	404	404	538
20	926	7,140	3,360	2,000	3,160	3,090	2,740	1,600	1,400	404	401	404
21	988	4,560	2,810	1,880	3,860	2,540	2,520	1,740	1,110	385	404	335
22	1,160	3,480	2,320	1,780	3,730	2,290	2,410	1,450	954	409	385	335
23	2,180	2,880	2,240	1,700	3,350	2,100	2,320	1,380	926	577	323	312
24	1,960	2,650	1,920	1,620	3,350	2,040	2,180	1,640	869	461	394	342
25	1,340	2,450	1,860	1,550	6,360	2,060	2,040	3,860	869	547	301	344
26	1,170	2,320	1,820	1,500	5,260	2,290	1,960	2,860	848	493	357	376
27	1,010	2,140	1,800	1,450	8,240	2,670	1,870	2,080	1,030	413	350	357
28	932	2,020	2,080	1,420	5,940	2,370	1,770	1,910	855	366	366	335
29	946	1,920	2,930	1,400	-------	2,200	1,700	1,980	799	394	350	250
30	897	1,320	3,110	1,380	-------	2,140	1,620	1,850	680	323	357	228
31	1,340	-------	2,580	1,370	-------	2,080	-------	1,540	-------	359	327	-------
1930-31												
1	290	284	354	532	490	772	4,140	984	1,970	558	794	668
2	249	247	305	366	456	812	7,680	954	1,410	582	733	668
3	207	286	504	300	396	883	4,660	1,010	1,220	515	668	3,680
4	258	285	464	270	396	772	3,350	969	1,010	582	706	2,020
5	194	368	392	462	337	668	2,970	869	897	515	693	1,310
6	283	316	353	2,740	408	680	2,540	833	799	570	668	1,050
7	190	330	422	2,890	375	631	2,390	912	930	1,650	619	826
8	290	288	411	1,200	339	1,540	2,540	2,750	4,940	2,670	558	740
9	199	253	404	850	615	4,510	2,180	3,730	3,150	1,920	604	680
10	258	298	385	693	1,760	2,860	1,870	3,590	1,960	8,830	2,280	643
11	271	226	376	733	1,020	2,020	1,740	4,490	1,740	9,960	6,640	607
12	208	288	376	668	820	1,600	1,560	2,790	1,490	4,780	2,560	570
13	290	296	290	680	1,060	1,380	1,400	2,860	1,240	2,740	1,680	582
14	203	352	313	515	2,080	1,190	1,340	4,090	1,110	4,370	1,270	547
15	329	325	329	417	2,190	1,080	1,200	3,730	1,050	12,400	1,060	547
16	231	347	197	320	1,220	1,060	1,110	3,090	2,350	2,240	940	526
17	253	479	228	385	1,230	1,200	1,050	2,610	4,390	1,740	826	619
18	224	784	179	376	7,100	1,430	1,030	2,320	2,440	1,510	759	619
19	231	835	294	1,810	4,230	1,400	984	2,040	1,620	1,600	656	570
20	335	472	288	3,130	2,330	1,430	897	1,850	1,270	1,430	693	558
21	215	409	279	1,860	1,720	1,410	869	2,750	1,160	1,960	643	526
22	239	376	293	1,210	1,400	1,380	772	2,630	954	1,560	643	504
23	244	366	322	850	1,170	1,340	897	2,540	1,310	1,870	810	472
24	264	335	272	620	1,080	1,250	1,190	2,200	1,780	1,940	954	441
25	261	360	256	530	984	1,290	1,030	1,850	1,140	1,740	746	413
26	252	323	331	500	911	1,430	940	1,640	890	1,540	680	515
27	217	327	1,450	536	812	1,430	1,430	1,470	776	1,160	595	515
28	277	282	2,630	706	759	1,360	1,490	1,290	772	1,010	944	482
29	280	198	1,540	826	-------	5,280	1,220	1,160	643	911	1,540	482
30	365	245	969	680	-------	6,300	1,050	1,080	643	897	1,200	422
31	327	-------	559	570	-------	3,730	-------	1,170	-------	911	856	-------

Daily discharge, in second-feet, of Schuylkill River at Norristown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	404	515	486	698	1,390	1,320	10,900	1,800	968	832	394	404
2	431	482	620	2,940	1,200	1,110	8,240	3,870	944	787	366	453
3	394	457	550	3,260	1,410	1,010	6,610	2,560	984	734	413	385
4	408	401	477	2,300	1,640	1,060	4,850	2,020	976	746	394	376
5	404	358	700	1,870	3,080	984	3,600	1,810	911	795	366	323
6	380	394	772	2,520	2,470	1,280	3,180	1,790	942	846	441	304
7	385	342	620	12,200	2,060	2,280	2,880	1,790	1,060	772	467	342
8	402	342	428	7,150	2,020	1,600	2,630	2,100	830	770	1,690	335
9	1,490	350	518	7,500	1,920	1,260	2,500	2,930	798	690	1,210	250
10	1,140	404	703	5,400	1,740	997	4,920	3,250	714	570	715	255
11	668	431	874	3,350	1,720	1,090	7,570	2,900	682	558	638	214
12	493	422	969	2,720	1,790	1,150	4,850	3,230	703	493	545	246
13	461	316	869	2,410	1,700	1,160	3,230	4,990	874	493	403	200
14	422	357	918	2,300	1,470	1,160	2,880	3,350	1,020	472	366	241
15	400	357	940	2,140	1,310	924	2,610	2,790	1,120	450	318	253
16	582	394	826	1,920	1,240	855	2,370	2,540	1,050	394	350	287
17	718	404	733	1,750	1,270	1,170	2,220	2,280	3,210	393	342	249
18	582	409	667	1,640	1,490	2,010	2,080	2,060	3,240	413	532	239
19	482	387	595	1,530	1,450	1,870	1,960	1,850	1,850	339	834	241
20	456	407	619	1,410	1,200	1,910	1,870	1,620	1,470	450	666	215
21	422	415	570	1,320	1,110	2,020	1,770	1,680	1,310	470	550	240
22	404	366	631	1,310	1,080	3,680	1,700	1,700	1,170	640	413	254
23	425	396	723	1,290	1,100	4,150	1,560	1,560	1,030	1,410	376	245
24	394	348	954	1,430	1,040	2,790	1,430	1,380	900	1,110	332	247
25	390	382	808	1,490	924	2,520	1,410	1,310	772	758	328	245
26	373	357	680	1,250	1,030	2,370	1,470	1,220	807	521	316	223
27	370	305	595	1,400	954	2,470	1,680	1,140	1,320	517	348	239
28	385	394	499	1,470	1,030	22,300	1,450	1,680	1,740	1,120	452	338
29	452	394	536	1,340	1,300	18,600	1,250	1,320	1,450	547	482	289
30	558	450	536	1,400	-------	9,600	1,190	1,140	1,030	472	422	364
31	582	-------	510	1,740	-------	7,470	-------	1,060	-------	394	358	-------

Note.—Daily discharge does not include water diverted through Schuylkill Navigation Co. Canal. Discharge estimated because of ice, Dec. 4-6, 22-30, 1929, Jan. 19 to Feb. 4, Feb. 16-19, Mar. 9-11, Nov. 20, 21, 29, Dec. 17, 1930, Jan. 2-4, 8, 9, 16-18, 23-26, 1931.

Monthly discharge, in second-feet, of Schuylkill River at Norristown, 1928-1932.

Month	Observed			Corrected for diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	1,510	680	962	1,060	0.602	0.69
November	1,190	591	849	943	.536	.60
December	1,860	600	1,030	1,110	.631	.73
January	4,500	510	1,940	2,040	1.16	1.34
February	30,100	810	3,810	3,900	2.22	2.31
March	24,300	1,860	5,170	5,300	3.01	3.47
April	18,300	1,430	4,740	4,860	2.76	3.08
May	6,060	1,860	3,010	3,130	1.78	2.05
June	2,880	1,020	1,400	1,490	.847	.94
July	1,260	520	763	831	.472	.54
August	7,730	418	1,080	1,150	.653	.75
September	2,760	389	1,090	1,170	.665	.74
The year	30,100	389	2,140	2,230	1.27	17.24
1929-30						
October	21,400	897	3,010	3,080	1.75	2.02
November	10,800	1,320	2,720	2,890	1.64	1.83
December	5,950	1,140	2,140	2,230	1.27	1.46
January	6,140	1,370	2,350	2,460	1.40	1.61
February	8,240	1,380	3,470	3,600	2.05	2.14
March	10,700	2,040	3,340	3,480	1.98	2.28
April	8,050	1,620	2,780	2,960	1.68	1.87
May	3,860	947	1,600	1,740	.989	1.14
June	2,040	680	1,110	1,210	.688	.77
July	911	323	559	604	.343	.40
August	868	180	351	377	.214	.25
September	814	228	382	410	.233	.26
The year	21,400	180	1,970	2,080	1.18	16.03
1930-31						
October	365	190	256	275	.156	.18
November	835	198	353	377	.201	.22
December	2,630	179	508	545	.289	.33
January	3,130	270	910	982	.517	.60
February	7,100	337	1,350	1,440	.767	.80
March	6,300	631	1,750	1,870	.994	1.15
April	7,680	772	1,920	2,030	1.09	1.22
May	4,490	833	2,140	2,260	1.22	1.41
June	4,940	643	1,570	1,660	.892	1.00
July	12,400	515	2,470	2,590	1.40	1.61
August	6,640	558	1,130	1,200	.642	.74
September	3,680	413	760	814	.432	.48
The year	12,400	179	1,260	1,340	.716	9.74
1931-32						
October	1,490	370	512	553	.314	.36
November	515	305	391	419	.238	.27
December	969	428	675	726	.412	.48
January	12,200	606	2,660	2,780	1.58	1.82
February	3,080	924	1,490	1,600	.909	.98
March	22,300	855	3,360	3,480	1.95	2.25
April	10,900	1,190	3,230	3,310	1.88	2.10
May	4,490	1,060	2,150	2,260	1.28	1.48
June	3,240	682	1,200	1,280	.727	.81
July	1,410	339	644	688	.391	.45
August	1,690	516	511	547	.311	.36
September	458	200	283	299	.170	.19
The year	22,300	200	1,430	1,490	.847	11.55

Note.—Monthly discharge corrected for diversion through Schuylkill Navigation Co. Canal.

SCHUYLKILL RIVER AT PHILADELPHIA

LOCATION.—Water-stage recorder at Fairmount Dam, Philadelphia, Philadelphia County.

DRAINAGE AREA.—1,900 square miles.

RECORDS AVAILABLE.—September, 1931, to September, 1932.

EXTREMES.—Maximum stage during period, 10.31 feet Mar. 28, 1932; minimum, 5.31 feet Sept. 11, 1932.

REMARKS.—Gage-height record good. Water-stage recorder, well, shelter, and services of observer furnished by City of Philadelphia.

Daily mean gage height, 1931-1932.

Day	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32													
1	-------	5.74	5.79	5.76	5.88	6.16	6.12	7.63	6.07	5.95	5.90	5.68	5.69
2	-------	5.74	5.76	5.80	6.42	6.04	6.00	7.42	6.73	5.90	5.88	5.69	5.74
3	-------	5.74	5.75	5.84	6.69	6.07	6.00	7.14	6.54	5.90	5.90	5.70	5.71
4	-------	5.67	5.74	5.78	6.40	6.12	5.96	6.93	6.31	5.91	5.88	5.71	5.68
5	-------	5.75	5.72	5.82	6.26	6.58	5.99	6.75	6.24	5.89	5.87	5.68	5.67
6	-------	5.69	5.70	5.94	6.32	6.49	6.04	6.65	6.20	5.87	5.91	5.67	5.66
7	-------	5.74	5.71	5.87	7.94	6.34	6.41	6.56	6.20	5.91	5.89	5.74	5.69
8	-------	5.73	5.68	5.71	7.20	6.29	6.21	6.50	6.26	5.86	5.88	6.08	5.68
9	-------	6.01	5.70	5.84	7.24	6.28	6.08	6.46	6.43	5.84	5.84	6.10	5.62
10	-------	6.10	5.71	5.82	7.05	6.22	6.02	6.60	6.63	5.82	5.79	5.87	5.60
11	-------	5.89	5.74	5.91	6.75	6.19	5.99	7.39	6.54	5.79	5.79	5.88	5.60
12	-------	5.79	5.73	5.99	6.56	6.22	6.06	6.93	6.58	5.79	5.73	5.72	5.60
13	-------	5.79	5.69	5.92	6.46	6.22	6.05	6.71	6.88	5.82	5.72	5.74	5.62
14	-------	5.75	5.69	5.93	6.40	6.16	6.06	6.59	6.73	5.88	5.72	5.70	5.56
15	-------	5.74	5.69	5.94	6.37	6.10	5.94	6.51	6.54	5.90	5.69	5.66	5.64
16	-------	5.79	5.71	5.94	6.29	6.06	5.92	6.45	6.46	5.92	5.68	5.65	5.62
17	-------	5.89	5.71	5.88	6.22	6.07	6.06	6.40	6.38	6.34	5.66	5.70	5.62
18	-------	5.84	5.70	5.84	6.19	6.12	6.25	6.35	6.32	6.69	5.70	5.73	5.54
19	-------	5.77	5.73	5.84	6.17	6.14	6.29	6.31	6.25	6.30	5.66	5.94	5.62
20	-------	5.76	5.74	5.82	6.14	6.08	6.26	6.28	6.20	6.15	5.64	5.84	5.55
21	-------	5.76	5.72	5.81	6.10	6.03	6.30	6.24	6.18	6.06	5.82	5.83	5.60
22	-------	5.75	5.74	5.84	6.08	6.00	6.38	6.22	6.17	6.04	5.70	5.74	5.61
23	-------	5.73	5.68	5.86	6.08	6.01	6.93	6.19	6.16	6.01	6.14	5.70	5.61
24	-------	5.74	5.70	5.95	6.07	5.99	6.62	6.14	6.12	5.93	6.02	5.70	5.60
25	5.71	5.72	5.71	5.96	6.13	5.96	6.48	6.12	6.05	5.90	5.92	5.69	5.53
26	5.86	5.69	5.70	5.86	6.08	5.96	6.43	6.13	6.01	5.89	5.78	5.67	5.57
27	5.78	5.71	5.65	5.84	6.08	5.96	6.42	6.17	6.00	6.00	5.72	5.70	5.60
28	5.78	5.69	5.75	5.76	6.12	5.97	8.58	6.17	6.08	6.18	5.95	5.73	5.66
29	5.78	5.79	5.71	5.81	6.10	6.04	8.71	6.11	6.10	6.16	5.83	5.77	5.64
30	5.74	5.82	5.75	5.79	6.08	-------	7.72	6.06	6.01	6.02	5.73	5.74	5.66
31	-------	5.82	-------	5.77	6.17	-------	7.22	-------	5.96	-------	5.68	5.70	-------

LITTLE SCHUYLKILL RIVER AT TAMAQUA

LOCATION.—Water-stage recorder at Panther Valley Water Co. pumping plant, 0.6 mile above Tamaqua, Schuylkill County, and 0.8 mile above mouth of Panther Creek.

DRAINAGE AREA.—44 square miles.

RECORDS AVAILABLE.—June, 1916, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 1,320 second-feet Mar. 5 (gage height, 3.85 feet); minimum, 7.7 second-feet Sept. 4, 5 (gage height, 0.99 foot).

Maximum discharge during year ending Sept. 30, 1930, about 830 second-feet Oct. 2 (gage height, 3.78 feet); minimum, 8.8 second-feet Aug. 21 (gage height, 1.86 feet).

Maximum discharge during year ending Sept. 30, 1931, 505 second-feet May 13 (gage height, 3.64 feet); minimum, 1.8 second-feet Dec. 18 (gage height, 1.21 feet).

Maximum discharge during year ending Sept. 30, 1932, 1,000 second-feet Mar. 31 (gage height, 4.54 feet); minimum, 3.0 second-feet Sept. 22 (gage height, 1.30 feet).

1916-1932: Maximum gage height, 7.5 feet at a site 3,600 feet downstream Sept. 30, 1924 (discharge not determined); minimum, 1.8 second-feet Dec. 18, 1930 (gage height, 1.21 feet).

(Diversion not included in extremes).

REMARKS.—Records fair to Nov. 16, 1930, except for estimated periods, which may be poor. Records good after that date. Panther Valley Water Co., diverts water above station. Monthly records corrected for diversion. Well and shelter for water stage recorder, concrete weir, and services of observer furnished by Panther Valley Water Co.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	16	11	25	16	30	139	62	121	41	22	9.2	9.5
2	14	10	18	28	23	107	62	124	38	22	9.8	8.6
3	14	11	15	24	28	85	52	332	36	16	12	9.5
4	16	12	15	17	26	89	51	241	35	16	14	7.7
5	13	13	14	40	28	528	76	227	34	17	10	8.9
6	15	12	14	462	29	495	143	186	33	16	11	12
7	14	11	14	124	208	290	110	169	31	16	9.2	9.2
8	13	11	14	80	64	182	107	127	30	13	9.2	20
9	13	10	14	105	42	135	100	110	32	13	8.6	20
10	12	10	14	121	37	105	121	96	30	13	9.2	12
11	12	11	14	83	25	177	103	87	29	11	12	14
12	12	11	16	64	24	246	173	72	23	11	11	16
13	11	14	16	51	24	275	129	80	23	11	11	13
14	10	12	16	40	24	462	132	83	21	11	69	47
15	11	12	17	40	24	400	135	67	28	11	62	40
16	10	11	17	42	19	400	332	52	24	10	21	27
17	12	11	16	46	25	300	495	47	22	9.8	15	37
18	12	11	31	61	21	231	462	46	20	11	15	32
19	14	16	16	103	25	182	370	83	20	31	12	27
20	11	25	14	48	25	154	315	80	22	14	12	25
21	11	18	14	40	23	129	315	80	22	12	10	22
22	11	14	14	42	24	113	300	64	34	12	10	23
23	12	12	14	40	24	107	236	60	23	12	10	21
24	13	12	14	37	24	96	204	60	35	12	11	19
25	12	12	14	37	17	83	285	58	28	11	10	20
26	12	12	14	36	103	83	265	52	26	11	11	17
27	11	10	14	42	290	74	204	55	21	10	10	17
28	12	10	16	33	173	69	199	60	25	12	9.5	16
29	12	12	17	54	-------	62	177	47	37	11	9.2	20
30	12	12	17	32	-------	64	135	46	23	13	8.6	18
31	12	-------	15	30	-------	62	-------	46	-------	10	9.2	-------

Daily discharge, in second-feet, of Little Schuylkill River at Tamaqua, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	30	46	60	50	40	158	86	67	67	32	14	9.4
2	364	49	55	80	40	161	86	71	60	35	14	16
3	445	75	50	101	40	133	80	75	57	29	15	15
4	310	80	47	95	40	118	78	58	52	26	19	13
5	232	78	52	86	40	104	75	49	47	25	17	10
6	184	75	50	90	41	99	95	50	46	25	13	11
7	161	73	50	95	45	97	364	44	47	25	13	12
8	120	71	69	101	33	280	265	45	44	22	10	31
9	99	71	60	104	37	229	220	42	55	22	11	16
10	86	71	49	99	40	205	184	41	116	49	12	13
11	78	65	45	88	40	211	170	40	62	26	10	12
12	70	60	44	95	40	199	150	37	47	22	9.4	12
13	69	58	53	101	40	167	150	36	45	21	9.4	14
14	62	58	69	116	40	144	141	50	42	22	10	18
15	57	62	69	116	40	130	110	118	42	21	20	22
16	52	57	60	113	40	123	139	80	44	19	20	16
17	49	73	62	110	45	118	150	69	69	20	16	12
18	41	289	76	104	45	123	141	75	99	19	14	11
19	37	271	108	104	53	126	139	90	71	20	12	12
20	36	226	108	90	104	97	120	86	62	20	10	12
21	35	193	99	80	130	80	139	71	57	17	9.7	12
22	71	161	85	75	123	84	128	67	52	24	11	11
23	97	139	75	65	120	80	113	67	47	23	16	9.5
24	58	130	65	60	113	78	106	88	47	17	14	10
25	53	116	60	55	110	86	88	133	41	14	14	11
26	44	106	57	50	184	144	86	93	35	19	13	10
27	42	97	53	45	178	106	86	90	34	17	13	9.8
28	44	90	50	44	170	113	76	97	31	15	12	10
29	42	80	50	42	-------	113	71	93	30	15	10	9.8
30	46	70	50	40	-------	101	69	82	30	14	9.7	9.5
31	50	-------	50	40	-------	84	-------	75	-------	14	9.7	-------
1930-31												
1	8.7	6.2	21	6.2	9.3	35	230	59	59	23	21	16
2	8.0	7.5	11	6.0	8.5	36	249	57	52	24	23	15
3	7.5	6.7	6.2	6.2	8.0	33	194	57	50	21	24	27
4	7.2	6.0	6.0	7.5	7.5	29	190	53	46	22	28	20
5	7.0	5.8	6.4	10	7.2	25	158	51	42	23	21	16
6	7.6	6.4	6.6	62	7.0	23	136	50	41	24	18	14
7	7.3	6.3	7.5	24	7.1	27	134	70	54	34	18	13
8	7.1	6.0	8.3	18	9.0	159	119	278	112	32	18	12
9	6.9	6.0	7.4	15	15	125	102	253	55	61	27	9.7
10	6.7	6.2	7.2	14	14	75	90	219	52	164	42	9.3
11	6.6	6.2	6.4	13	11	62	88	215	46	114	42	9.3
12	6.3	6.2	6.8	13	8.5	56	79	234	44	59	30	9.3
13	6.1	6.2	5.6	12	7.5	57	70	346	43	50	24	9.1
14	6.0	6.5	4.6	9.9	28	67	65	366	42	45	21	11
15	6.0	7.0	3.9	8.0	12	67	59	286	42	41	21	8.5
16	7.5	7.4	3.5	7.5	11	63	65	230	60	38	21	15
17	7.0	8.3	3.3	7.5	15	63	55	190	57	36	20	11
18	6.4	12	3.2	11	148	67	57	164	43	34	18	11
19	6.3	8.5	3.6	15	73	67	51	136	38	34	19	10
20	7.0	8.7	4.8	20	40	65	50	116	36	33	17	10
21	6.8	7.2	6.6	16	34	73	52	131	36	43	16	12
22	6.4	6.2	4.4	11	34	73	44	102	35	77	15	9.7
23	6.1	6.2	3.0	10	36	71	71	114	36	55	17	8.5
24	6.1	7.0	3.5	9.1	40	73	45	102	36	50	17	8.9
25	6.2	7.4	3.5	9.0	40	109	47	92	29	41	17	9.3
26	6.0	6.0	6.0	9.1	24	125	75	84	31	29	17	13
27	5.9	5.7	34	11	33	116	77	68	32	27	18	14
28	5.9	4.8	25	16	31	131	63	63	29	24	21	11
29	6.0	4.1	14	14	-------	319	65	63	28	24	28	9.7
30	6.1	7.5	8.0	12	-------	245	62	60	24	25	19	9.1
31	6.1	-------	6.5	10	-------	208	-------	62	-------	23	16	-------

Daily discharge, in second-feet, of Little Schuylkill River at Tamaqua, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	10	9.8	13	16	52	54	738	81	31	48	17	11
2	9.8	11	8.4	50	47	49	392	86	30	104	17	6.2
3	8.6	10	8.0	43	50	48	357	62	31	48	20	6.0
4	9.2	9.6	9.6	32	76	46	261	56	29	51	20	9.0
5	9.4	7.2	11	26	79	48	215	57	26	48	14	11
6	7.4	6.7	8.7	76	66	49	180	59	31	45	15	11
7	8.0	6.2	8.0	141	63	49	151	76	31	44	18	7.8
8	8.4	6.6	8.0	114	66	47	138	113	26	38	22	6.6
9	9.3	8.0	8.0	108	59	45	129	160	25	34	14	7.0
10	8.2	6.9	9.0	92	56	44	136	135	24	30	14	5.4
11	7.6	6.6	15	78	74	42	130	132	22	30	17	6.2
12	8.6	8.1	19	70	67	40	110	128	28	29	12	7.2
13	7.1	6.8	24	88	60	39	98	100	41	28	12	7.4
14	7.4	6.8	27	75	58	38	91	88	31	25	12	5.6
15	7.7	6.4	20	69	56	38	88	86	27	25	12	6.8
16	9.7	8.6	15	69	54	39	79	82	103	26	10	5.4
17	8.8	7.0	12	67	58	42	73	75	172	25	11	6.2
18	7.8	8.0	12	67	58	60	73	66	71	25	46	6.4
19	8.5	8.6	11	61	52	65	66	60	59	23	26	6.0
20	6.6	8.6	14	55	47	87	62	57	56	23	13	4.9
21	6.8	7.2	16	51	45	82	59	52	50	26	14	4.4
22	6.9	6.6	15	49	43	116	56	50	46	22	13	5.4
23	6.8	8.0	23	55	41	114	53	46	38	50	14	6.5
24	7.1	6.3	19	64	39	114	51	44	36	25	12	5.1
25	7.8	6.1	18	51	37	113	49	40	35	22	12	5.0
26	8.6	5.6	16	46	37	128	48	39	33	20	10	5.1
27	8.1	7.5	14	59	43	135	52	40	56	19	11	5.7
28	15	8.6	12	52	87	387	40	40	68	21	12	7.6
29	20	8.8	11	47	60	329	41	36	38	19	9.6	6.4
30	20	14	10	90	-------	308	35	33	32	17	7.9	5.5
31	13	-------	10	67	-------	507	-------	31	-------	16	6.8	-------

Note.—Discharge estimated Dec. 7–12, 21–28, 1928, Jan. 1–5, 15, Jan. 29 to Feb. 4, 12–15, 22–24, Nov. 29 to Dec. 3, 1929, Jan. 1, 20–31, Feb. 1–5, 10–16, Sept. 18–30, Oct. 1 to Nov. 7, Dec. 13-17, 25-27, 30, 31, 1930, Jan. 1-5, 15-17, Jan. 24 to Feb. 8, Feb. 16, Dec. 7-10, 26-31, 1931, Jan. 1, Feb. 1–3, 21–25, Mar. 8–10 and 13–16, 1932.

Monthly discharge, in second-feet, of Little Schuylkill River at Tamaqua, 1928-1932.

Month	Observed			Corrected for diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	16	10	12.4	12.4	0.282	0.33
November	25	10	12.3	12.4	.282	.31
December	31	14	15.9	16.4	.373	.43
January	462	16	64.5	64.8	1.47	1.70
February	290	17	51.2	51.3	1.17	1.22
March	528	62	191	191	4.34	5.00
April	495	51	195	195	4.43	4.94
May	332	46	98.6	98.6	2.24	2.58
June	41	20	28.2	28.2	.641	.72
July	22	9.8	13.6	13.6	.309	.36
August	69	8.6	14.5	14.5	.330	.38
September	47	7.7	19.6	19.6	.445	.50
The year	528	7.7	59.8	59.9	1.36	18.47
1929-30						
October	445	30	102	102	2.32	2.68
November	289	46	103	103	2.34	2.61
December	108	44	62.2	62.2	1.41	1.63
January	116	40	81.7	81.7	1.86	2.14
February	184	37	72.0	72.0	1.64	1.71
March	280	78	132	132	3.00	3.46
April	364	69	130	130	2.95	3.29
May	133	36	70.2	70.2	1.60	1.84
June	116	30	52.6	52.6	1.20	1.34
July	49	14	22.2	22.2	.505	.58
August	20	9.4	12.9	12.9	.293	.34
September	31	9.5	13.0	13.0	.295	.33
The year	445	9.4	71.2	71.2	1.62	21.95
1930-31						
October	8.7	5.9	6.67	6.92	.158	.18
November	12	4.1	6.74	7.13	.163	.18
December	54	3.0	7.99	9.00	.205	.24
January	62	6.0	13.3	14.2	.324	.37
February	148	7.0	25.7	27.2	.621	.65
March	319	23	88.5	90.4	2.06	2.38
April	249	44	94.7	95.9	2.19	2.44
May	366	50	141	141	3.22	3.71
June	112	24	44.3	44.3	1.01	1.13
July	164	21	42.9	42.9	.979	1.13
August	42	15	21.7	21.7	.495	.57
September	27	8.5	12.0	12.0	.274	.31
The year	366	3.0	42.3	42.9	.979	13.29
1931-32						
October	20	6.6	9.30	9.46	.215	.25
November	14	5.6	7.87	7.87	.179	.20
December	27	8.0	13.7	13.8	.314	.36
January	141	16	65.4	65.5	1.49	1.72
February	87	37	56.2	56.2	1.28	1.38
March	507	38	107	107	2.43	2.80
April	738	35	135	135	3.07	3.42
May	160	31	71.3	71.3	1.62	1.87
June	172	22	44.2	44.2	1.00	1.12
July	104	16	32.5	32.5	.739	.85
August	46	6.8	15.0	15.0	.341	.39
September	11	4.4	6.66	6.66	.151	.17
The year	738	4.4	46.9	46.9	1.07	14.53

FRENCH CREEK NEAR SAINT PETERS

LOCATION.—Staff gage at highway bridge 1¼ miles northwest of Saint Peters, Chester County.

DRAINAGE AREA.—10.9 square miles.

RECORDS AVAILABLE.—January, 1930, to September, 1932.

REMARKS.—There is no constant relation between gage height and discharge as the stage is affected by varying amounts of backwater owing to the dam one-fourth mile downstream being temporarily repaired from time to time. The following current-meter discharge measurements were made:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet		Feet	Second-feet
1930			1930			1930		
Apr. 7 --	2.60	78.5	June 6 --	1.04	8.15	Sept. 9 --	0.74	3.24
Apr. 7 --	2.37	65.8	June 6 --	1.06	13.7	Nov. 6 --	.82	4.25
Apr. 7 --	2.36	63.4	July 30 --	.83	4.09	Nov. 6 --	.82	4.30
Apr. 15 --	1.30	16.9	July 30 --	.82	4.04			
Apr. 15 --	1.30	18.4	July 30 --	.81	6.10	1931		
May 23 --	1.05	9.03	Aug. 5 --	.73	3.65	Apr. 29 --	.95	5.85
May 23 --	1.05	8.97	Aug. 22 --	.78	4.38	Apr. 29 --	.95	6.59
May 23 --	1.05	9.42	Aug. 22 --	.78	4.10			
June 6 --	1.03	8.44	Sept. 9 --	.74	3.45	1932		
						Jan. 15 --	1.54	13.5
						July 19 --	.80	4.16
						Sept. 29 --	.93	3.59

DELAWARE BASIN—STATION NO. 20

PERKIOMEN CREEK AT GRATERS FORD

LOCATION.—Water-stage recorder 1,650 feet upstream from highway bridge, Graters Ford, Montgomery County. Zero of gage is 112.37 feet above mean sea level.

DRAINAGE AREA.—280 square miles.

RECORDS AVAILABLE.—June, 1914, to September, 1932.

EXTREME.—Maximum stage during year ending Sept. 30, 1929, 11.22 feet Feb. 26; minimum discharge, 13 second-feet Aug. 9 (gage height, 0.94 foot).

Maximum stage during year ending Sept. 30, 1930, 11.62 feet Oct. 2; minimum discharge, 12 second-feet, Aug. 17 (gage height, 0.86 foot).

Maximum stage during year ending Sept. 30, 1931, 6.16 feet July 14; minimum discharge, 12 second-feet Oct. 5 (gage-height, 0.87 foot).

Maximum stage during year ending Sept. 30, 1932, 10.27 feet Mar. 28; minimum discharge, 11 second-feet. Sept. 25 (gage height, 0.91 foot, affected by grass).

1914-1932: Maximum stage, 13.36 feet July 14, 1928; minimum discharge, that of Sept. 25, 1932.

REMARKS.—Records good except those above 3,500 second-feet and those estimated, which are fair. Low flows affected by regulation from mills upstream.

Daily discharge, in second-feet, of Perkiomen Creek at Graters Ford, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	181	74	695	359	127	1,020	163	334	104	71	39	56
2	134	72	308	1,310	100	1,340	137	308	87	71	40	51
3	111	76	198	415	90	1,980	120	970	82	64	32	45
4	104	104	162	298	75	1,370	137	512	85	56	36	42
5	98	207	151	224	75	5,040	215	387	80	71	34	53
6	415	137	155	1,840	67	4,080	284	446	82	76	28	47
7	224	104	727	695	4,370	1,370	224	1,700	92	44	30	49
8	155	93	114	478	738	478	178	545	94	51	36	220
9	127	82	107	359	334	478	160	387	118	42	26	359
10	111	76	111	870	446	294	181	334	97	40	33	170
11	101	76	107	780	238	289	265	284	87	44	30	112
12	93	82	98	359	194	284	2,910	246	71	42	40	73
13	90	82	101	274	177	298	1,080	270	66	38	224	73
14	76	79	104	240	173	780	580	260	60	36	5,040	92
15	82	74	144	190	130	1,020	415	279	66	40	3,390	294
16	82	67	159	170	117	1,140	5,380	228	129	40	334	228
17	90	69	141	170	104	655	4,200	202	90	36	170	224
18	82	67	260	166	114	478	1,250	224	66	40	120	260
19	137	65	246	298	107	359	655	2,590	60	76	94	173
20	144	107	198	265	104	334	478	1,370	56	82	80	129
21	101	120	144	186	110	279	580	655	58	54	60	100
22	93	93	98	177	110	233	1,700	545	66	47	56	80
23	87	82	69	181	110	198	825	334	54	44	85	69
24	87	69	65	202	110	308	478	265	54	42	104	69
25	82	63	65	194	111	387	415	238	112	39	85	60
26	82	58	75	173	5,720	334	1,500	198	545	40	64	40
27	76	58	101	190	6,060	251	580	166	140	34	60	53
28	79	54	114	151	2,590	202	446	153	92	42	156	47
29	79	52	130	162	-------	156	695	150	97	51	110	47
30	82	69	124	207	-------	140	387	140	92	51	76	104
31	72	-------	96	194	-------	160	-------	126	-------	44	66	-------
1929–30												
1	187	187	135	618	155	519	138	116	70	42	20	25
2	9,950	148	131	498	180	491	134	118	68	55	19	35
3	2,710	1,980	138	810	212	362	125	109	63	50	19	38
4	712	1,380	154	604	519	258	125	93	56	42	29	37
5	414	531	152	308	1,140	249	118	90	50	40	19	28
6	289	343	148	268	671	273	118	88	45	35	27	18
7	235	263	148	258	389	268	1,650	81	43	39	22	17
8	187	221	180	284	337	4,090	741	74	43	34	27	31
9	148	191	289	337	337	1,350	383	74	51	26	19	28
10	125	163	191	289	309	634	276	68	165	61	19	25
11	115	156	156	204	284	532	244	61	212	58	18	27
12	106	145	274	216	278	742	217	59	98	52	17	17
13	100	134	310	337	1,580	452	212	64	74	43	16	20
14	96	163	596	1,620	2,300	348	309	60	63	40	16	16
15	93	210	553	1,640	945	284	240	232	57	31	18	32
16	90	218	408	744	550	263	342	200	55	34	22	27
17	80	180	309	428	380	263	532	118	48	30	12	35
18	75	3,190	1,960	315	500	244	527	93	48	27	23	82
19	72	1,390	2,210	240	736	637	560	88	48	24	17	45
20	60	616	847	210	978	377	359	103	44	25	21	34
21	68	472	394	190	1,090	278	273	93	38	26	18	31
22	116	354	268	180	848	221	263	79	32	32	22	34
23	579	294	230	170	686	199	221	62	34	27	21	33
24	216	263	210	155	726	199	191	74	36	23	15	24
25	145	258	200	150	1,860	208	170	560	28	22	30	46
26	115	226	190	145	1,430	308	166	221	26	21	31	36
27	93	212	195	140	1,660	253	141	122	29	20	22	24
28	81	195	224	140	704	195	134	106	32	30	24	20
29	79	166	670	140	-------	170	128	128	31	20	32	32
30	84	150	674	140	-------	163	112	103	35	26	17	25
31	206	-------	506	145	-------	152	-------	86	-------	22	19	-------

Daily discharge, in second-feet, of Perkiomen Creek at Graters Ford, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	28	22	35	60	60	108	1,180	83	310	41	56	70
2	26	33	46	40	48	157	1,620	77	239	38	52	62
3	21	44	48	40	50	142	631	88	158	37	53	1,280
4	15	40	43	43	45	119	439	85	106	36	72	327
5	13	27	36	50	45	107	326	74	80	39	66	191
6	27	43	33	1,320	40	98	266	63	54	48	53	136
7	19	32	37	399	40	90	269	88	72	82	41	106
8	18	25	40	226	90	894	382	569	629	235	39	88
9	24	28	38	150	258	1,020	256	368	252	125	43	78
10	16	31	40	116	426	421	195	212	152	2,650	273	70
11	16	31	35	90	251	258	178	280	157	1,720	1,150	60
12	14	36	34	70	195	198	152	212	134	408	348	58
13	30	25	31	60	277	154	128	371	83	214	234	48
14	22	38	31	45	1,030	136	120	512	83	834	150	50
15	22	28	30	35	406	123	102	385	72	1,440	112	50
16	23	46	30	35	214	122	90	243	1,020	308	96	49
17	20	85	31	36	225	152	86	178	1,880	182	82	46
18	16	325	34	42	2,110	204	83	144	352	199	69	47
19	16	152	26	1,380	583	172	74	119	196	166	57	47
20	40	78	25	800	349	184	72	108	134	162	56	43
21	16	58	28	364	261	176	67	303	104	410	54	50
22	22	50	36	277	219	152	65	446	86	188	52	49
23	26	42	35	143	194	128	90	511	164	128	54	43
24	25	41	36	96	180	107	104	342	156	154	77	40
25	15	38	35	77	151	105	84	220	112	295	72	42
26	20	38	39	59	133	131	127	181	84	172	60	30
27	32	38	631	76	112	107	327	141	72	115	53	48
28	28	54	477	92	101	96	166	117	63	88	288	48
29	28	43	201	82	-------	2,190	114	99	55	87	140	44
30	30	22	141	70	-------	797	93	79	46	76	109	42
31	34	-------	90	66	-------	397	-------	82	-------	68	81	-------
1931–32												
1	35	54	54	182	142	138	2,310	706	82	82	30	66
2	37	47	62	1,060	170	109	767	836	74	93	23	42
3	35	44	50	761	163	93	558	370	73	72	28	31
4	34	42	57	371	295	86	371	240	71	65	27	27
5	38	38	152	253	1,000	93	326	187	61	98	28	30
6	31	39	105	2,160	461	162	299	178	63	77	24	33
7	36	31	74	4,330	343	753	263	223	125	74	132	29
8	35	31	69	1,110	343	346	235	248	87	62	275	18
9	133	38	57	1,530	304	261	230	691	63	56	98	24
10	83	37	165	939	235	206	1,660	363	55	48	58	20
11	54	31	153	597	289	167	1,820	249	56	50	43	15
12	42	34	123	425	299	148	1,800	394	44	41	42	28
13	35	34	106	377	273	152	558	1,070	59	35	34	28
14	32	32	118	337	199	125	419	504	82	36	28	32
15	43	36	122	268	166	117	337	326	88	39	37	20
16	50	44	103	240	145	125	289	258	682	21	29	20
17	50	33	80	195	170	156	240	208	1,340	24	28	17
18	48	49	71	191	221	497	221	166	337	33	31	11
19	43	36	70	163	178	284	199	141	172	22	65	17
20	39	38	63	141	148	305	178	127	138	26	53	22
21	41	35	66	134	122	263	159	118	115	21	43	16
22	34	36	79	134	125	1,320	148	131	98	30	46	15
23	34	40	157	138	133	907	138	122	78	218	41	16
24	29	38	163	220	105	481	112	93	63	59	28	13
25	31	41	118	179	98	359	122	89	58	46	33	11
26	37	34	88	138	106	315	148	83	112	41	32	18
27	32	38	76	242	98	395	214	104	231	108	20	25
28	29	30	67	263	112	9,340	149	457	479	145	70	18
29	36	34	70	183	156	1,690	122	167	194	49	54	21
30	55	45	63	294	-------	823	110	115	113	33	41	32
31	63	-------	57	319	-------	805	-------	98	-------	27	38	-------

Note.—Discharge estimated Dec. 24-26, 1928, Jan. 14-17, Feb. 2-5, 21-24, Nov. 30, Dec. 1, 23-26, 1929, Feb. 16-18, Dec. 15, 16, 25, 31, 1930, Jan. 1-3, 9, 11, 13-16, 20, 30, Feb. 1, 3, 4, 1931, because of ice; Jan. 18 to Feb. 11, Aug. 10-15, 1930, Feb. 5-10, 1931, because of no gage-height record; Aug. 1 to Sept. 30, 1932, because of aquatic growth.

Monthly discharge, in second-feet, of Perkiomen Creek at Graters Ford, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	415	72	115	0.411	0.47
November	207	52	83.7	.299	.33
December	695	65	154	.550	.63
January	1,840	151	380	1.36	1.57
February	6,060	67	814	2.91	3.03
March	5,040	140	845	3.02	3.48
April	5,380	120	887	3.17	3.54
May	2,590	126	479	1.71	1.97
June	545	54	99.4	.355	.40
July	82	34	49.9	.178	.21
August	5,040	26	348	1.24	1.43
September	359	40	114	.407	.45
The year	6,060	26	361	1.29	17.51
1929–30					
October	9,950	60	569	2.03	2.34
November	3,190	134	480	1.71	1.91
December	2,210	131	421	1.50	1.73
January	1,640	140	385	1.38	1.59
February	2,300	155	778	2.78	2.90
March	4,090	152	483	1.72	1.98
April	1,650	112	305	1.09	1.22
May	560	59	117	.418	.48
June	212	26	57.4	.205	.23
July	61	20	34.1	.122	.14
August	32	12	21.0	.075	.09
September	82	16	30.7	.110	.12
The year	9,950	12	304	1.09	14.78
1930–31					
October	40	13	22.6	.081	.09
November	325	22	53.1	.190	.21
December	631	25	79.1	.282	.33
January	1,380	35	208	.743	.86
February	2,110	40	289	1.03	1.07
March	2,190	90	298	1.06	1.22
April	1,620	65	263	.939	1.05
May	569	63	219	.782	.90
June	1,880	46	237	.846	.94
July	2,650	36	347	1.24	1.43
August	1,150	39	134	.479	.55
September	1,280	30	111	.396	.44
The year	2,650	13	188	.671	9.09
1931–32					
October	133	29	43.7	.156	.18
November	54	30	38.0	.136	.15
December	165	50	92.2	.329	.38
January	4,330	134	577	2.06	2.38
February	1,000	98	228	.814	.88
March	9,340	86	678	2.42	2.79
April	2,310	110	483	1.72	1.92
May	1,070	83	292	1.04	1.20
June	1,340	44	176	.629	.70
July	218	21	59.1	.211	.24
August	275	20	50.3	.180	.21
September	96	11	23.8	.085	.09
The year	9,340	11	229	.818	11.12

DELAWARE BASIN—STATION NO. 21

CRUM CREEK AT WOODLYN

LOCATION.—Water-stage recorder at highway bridge at Woodlyn, Delaware County, 2 miles east of Chester.

DRAINAGE AREA.—34.0 square miles.

RECORDS AVAILABLE.—June, 1931, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1931, about 180 second-feet Aug. 11 (gage height, determined from hydrograph, 2.3 feet); minimum, 0.9 second-foot, Sept. 29 (gage height, 0.55 foot).

Maximum discharge during year ending Sept. 30, 1932, about 283 second-feet Mar. 28 (gage height, 3.00 feet); minimum, 0.3 second-foot Aug. 21 (gage height, 0.52 foot).

REMARKS.—Records fair. Flow regulated by Crum Creek Reservoir five miles upstream. Discharge estimated Mar. 7-16, June 5-10, July 2-7. Records of pumpage from Crum Creek Reservoir furnished by Philadelphia Suburban Water Co.

Daily discharge, in second-feet, 1931-1932.

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1931					1931				
1	-------	5.7	2.5	9.0	16	-------	38	19	16
2	-------	6.2	2.8	7.8	17	-------	6.2	11	15
3	-------	5.2	2.0	6.2	18	-------	5.7	2.5	16
4	-------	6.7	2.5	6.7	19	-------	3.9	2.0	11
5	-------	8.4	2.0	4.3	20	-------	5.2	2.2	13
6	-------	28	2.0	3.2	21	-------	39	16	9.6
7	-------	20	2.2	2.8	22	-------	39	18	3.6
8	-------	35	2.2	2.5	23	-------	11	36	5.2
9	-------	36	1.2	2.8	24	-------	5.2	55	3.6
10	-------	55	18	1.7	25	-------	11	12	2.2
11	-------	113	140	5.7	26	-------	24	8.4	3.6
12	-------	47	44	2.8	27	10	14	9.0	2.0
13	-------	7.8	6.2	1.7	28	9.6	5.7	21	1.0
14	-------	24	2.5	2.0	29	9.0	6.7	20	.9
15	-------	113	2.8	11	30	6.7	7.2	13	1.0
					31		6.7	11	-------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	1.0	2.0	3.6	11	3.5	3.6	32	28	5.7	3.2	1.4	2.5
2	1.0	1.2	3.2	6.6	2.5	3.0	18	12	5.7	3.9	2.9	3.3
3	1.2	1.4	2.0	2.8	3.2	3.6	16	9.0	5.7	3.9	4.3	9.9
4	1.0	2.0	2.8	2.5	9.0	3.6	15	7.2	6.2	4.7	3.9	3.6
5	1.0	2.0	2.8	2.5	6.6	3.9	13	6.7	6.7	3.2	3.2	3.8
6	1.4	2.0	2.0	9.6	3.9	22	15	8.4	7.8	3.9	4.6	2.5
7	1.2	2.2	2.0	22	4.7	22	14	11	9.0	4.7	4.3	2.2
8	9.8	2.8	1.7	6.0	3.9	4.0	11	9.0	5.7	2.5	2.8	1.7
9	12	2.8	6.0	8.6	3.9	3.3	17	8.4	4.7	2.5	2.2	1.4
10	2.2	2.5	6.2	15	3.9	3.2	34	8.4	4.7	2.5	2.5	1.4
11	2.0	2.8	2.8	6.7	4.7	3.1	24	9.9	3.9	2.2	9.3	1.4
12	2.5	3.2	2.8	4.7	5.7	3.0	20	28	6.9	2.2	3.2	1.4
13	1.4	3.2	2.5	4.3	6.7	2.9	16	30	7.2	2.5	2.2	2.0
14	1.0	3.2	3.6	3.9	2.2	2.8	14	11	5.7	2.5	2.5	2.5
15	1.4	5.7	3.2	3.2	2.8	2.7	14	9.0	5.7	2.5	2.0	1.7
16	2.0	4.6	2.2	2.5	3.9	2.8	12	11	5.7	2.5	1.7	1.7
17	1.4	1.7	2.2	2.5	4.7	7.7	12	9.0	3.9	2.8	2.0	2.0
18	1.2	1.2	2.2	3.2	4.7	4.7	10	36	3.9	2.5	20	2.0
19	1.4	1.7	2.2	2.8	3.9	3.9	9.6	11	3.6	4.2	13	1.7
20	7.4	1.7	2.5	2.5	3.6	3.6	11	10	3.6	4.3	.4	2.0
21	59	1.7	2.8	2.8	3.2	3.9	11	6.7	4.4	3.2	.3	2.5
22	6.5	1.4	3.9	2.8	3.6	20	20	7.8	12	2.5	.4	2.5
23	1.2	2.0	4.3	2.8	3.6	7.8	21	7.2	4.7	10	1.2	2.8
24	1.0	2.0	3.2	3.2	3.2	6.2	23	6.7	3.9	3.6	1.7	2.8
25	1.2	2.5	2.5	2.5	3.6	5.7	26	6.7	3.2	2.5	2.0	2.5
26	7.6	2.2	2.5	2.5	3.6	6.2	24	6.2	3.6	3.6	2.0	2.0
27	1.2	2.2	2.5	6.4	3.9	7.6	12	11	7.2	3.2	2.3	4.2
28	1.2	2.5	2.8	3.2	3.9	113	8.4	9.1	5.7	2.8	3.9	5.2
29	21	2.5	2.8	3.6	3.6	16	8.4	5.7	4.3	2.2	2.2	3.2
30	12	3.6	2.8	4.7	-------	14	9.0	5.7	3.9	2.2	2.2	2.5
31	5.2	-------	2.8	3.2	-------	22	-------	6.2	-------	1.7	2.2	-------

Monthly discharge, in second-feet, of Crum Creek at Woodlyn, 1931-1932.

Month	Observed			Corrected for diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1931						
June 27-30	10	6.7	8.82	20.6	0.606	0.09
July	113	3.9	23.9	35.8	1.05	1.21
August	140	1.2	15.8	28.0	.824	.95
September	16	.9	5.80	18.2	.535	.60
1931-32						
October	59	1.0	5.50	17.6	.518	.60
November	5.7	1.2	2.42	14.2	.418	.47
December	6.2	1.7	2.95	14.6	.429	.49
January	22	2.5	5.18	16.7	.491	.57
February	9.0	2.2	4.11	15.8	.465	.50
March	113	2.7	10.7	22.8	.671	.77
April	34	8.4	16.3	28.4	.835	.93
May	36	5.7	11.4	23.8	.700	.81
June	12	3.2	5.50	18.6	.547	.61
July	10	1.7	3.25	19.0	.559	.64
August	20	.3	3.51	17.4	.512	.59
September	9.9	1.4	2.70	17.5	.515	.57
The year	113	.3	6.13	18.9	.556	7.55

Note.—Table of monthly discharge corrected for diversion from Crum Creek Reservoir. Not corrected for storage.

DELAWARE BASIN—STATION NO. 22

RIDLEY CREEK AT MOYLAN

LOCATION.—Water-stage recorder at Fox Bank Bridge at Moylan, Delaware County, one mile southeast of Media. Zero of gage is 87.36 feet above mean sea level.

DRAINAGE AREA.—32.4 square miles.

RECORDS AVAILABLE.—August, 1931, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1931, 121 second-feet Aug. 15 (gage height, 2.16 feet); minimum, 3.5 second-feet Sept. 24 (gage height, 0.74 foot).

Maximum stage during year ending Sept. 30, 1932, 4.60 feet Mar. 28 (discharge not determined); minimum discharge, 1.8 second-feet several times in September (gage height, 0.66 foot).

REMARKS.—Records good except those above 500 second-feet and those for estimated periods, which are fair. Discharge Oct. 9-21, 1931, estimated because of no gage-height record. Flow regulated by storage reservoir of Media Water Co.

Daily discharge, in second-feet, 1931-1932.

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1931			1931			1931		
1	-------	17	11	-------	12	21	18	13
2	-------	16	12	34	12	22	19	12
3	-------	19	13	24	11	23	72	12
4	-------	21	14	20	12	24	48	9.5
5	-------	16	15	42	12	25	24	9.3
6	-------	15	16	21	12	26	20	19
7	-------	15	17	16	11	27	24	18
8	-------	13	18	16	13	28	26	12
9	-------	13	19	16	12	29	24	12
10	-------	12	20	15	12	30	22	11
						31	16	-------

Daily discharge, in second-feet, of Ridley Creek at Moylan, 1931-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	10	12	21	71	20	19	124	77	21	14	6.9	6.7
2	10	12	14	70	22	19	53	46	21	13	6.6	36
3	12	12	12	29	24	19	50	32	20	12	11	15
4	12	11	15	21	49	19	43	30	18	13	13	9.0
5	11	12	19	19	67	19	41	29	20	14	8.7	7.3
6	11	11	16	50	32	86	40	31	20	13	8.4	9.6
7	10	11	13	156	28	106	38	30	24	14	8.0	7.9
8	19	12	14	53	26	32	39	28	18	13	8.5	4.0
9	22	11	26	82	24	28	45	31	15	9.8	7.6	5.5
10	15	13	34	80	24	24	98	29	16	9.7	8.8	5.1
11	12	11	20	47	25	23	81	29	16	9.1	13	5.2
12	11	13	18	35	26	23	59	87	20	8.7	11	4.9
13	9.8	11	17	33	26	24	46	121	30	8.1	7.5	4.2
14	9.4	10	19	29	23	22	43	46	24	8.6	6.1	3.8
15	10	11	16	28	22	20	39	36	22	8.4	6.6	4.8
16	13	11	14	25	22	20	37	33	24	7.3	6.8	5.4
17	13	15	13	23	26	36	35	30	19	8.1	6.2	4.6
18	11	11	13	23	30	40	35	28	19	7.5	13	4.6
19	9.8	12	13	21	23	27	34	27	18	7.9	13	5.0
20	9.0	20	13	20	22	26	32	27	19	7.3	8.3	4.8
21	8.8	12	14	21	20	27	32	26	19	13	9.8	4.1
22	8.6	12	16	21	21	113	31	30	16	16	6.5	4.4
23	9.8	12	22	21	21	61	30	26	15	20	6.8	4.4
24	11	12	18	25	18	37	29	25	14	11	7.0	4.5
25	10	13	15	21	18	32	30	24	13	9.3	7.6	5.0
26	12	12	14	18	20	31	33	23	12	10	5.0	3.9
27	9.8	11	13	37	21	40	31	28	17	8.3	7.3	4.8
28	11	14	12	25	20	460	28	32	21	9.1	7.6	8.4
29	30	14	13	24	21	85	28	23	16	8.9	7.7	5.2
30	18	20	13	36	-------	57	27	24	14	6.8	5.9	5.7
31	15	-------	13	28	-------	68	-------	22	-------	6.9	6.4	-------

Monthly discharge, in second-feet, of Ridley Creek at Moylan, 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1931					
August 12-31	72	15	25.8	0.796	0.59
September	21	9.3	13.4	.414	.46
1931-32					
October	30	8.6	12.4	.383	.44
November	20	10	12.5	.386	.43
December	34	12	16.2	.500	.58
January	156	18	38.5	1.19	1.37
February	67	18	25.6	.790	.85
March	460	19	53.0	1.64	1.89
April	124	27	43.9	1.35	1.51
May	121	22	35.8	1.10	1.27
June	50	12	18.7	.577	.64
July	20	6.8	10.5	.324	.37
August	18	5.0	8.44	.260	.30
September	36	3.8	6.79	.210	.23
The year	460	3.8	23.5	.725	9.88

CHESTER CREEK NEAR CHESTER

LOCATION.—Water-stage recorder at Dutton Mill Bridge, 3 miles northwest of Chester, Delaware County. Zero of gage is 23.538 feet above mean sea level.

DRAINAGE AREA.—61.4 square miles.

RECORDS AVAILABLE.—August, 1931, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1931, 258 second-feet Aug. 23 (gage height, 2.68 feet); minimum, 1.0 second-foot Aug. 21 (gage height, 0.25 foot).

Maximum stage during year ending Sept. 30, 1932, 7.41 feet Mar. 28 (discharge not determined); minimum discharge, 1.0 second-foot Oct. 22 (gage height, 0.25 foot).

REMARKS.—Records good except those above 500 second-feet and those for estimated periods, which may be fair. Discharge estimated Mar. 11 because of ice. Low flows regulated by mill 150 feet upstream.

Daily discharge, in second-feet, 1931-1932.

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1931			1931			1931		
1	-------	30	11	-------	21	21	25	23
2	-------	28	12	54	21	22	32	20
3	-------	28	13	38	19	23	140	17
4	-------	32	14	31	20	24	96	19
5	-------	29	15	61	19	25	45	15
6	-------	26	16	37	20	26	34	34
7	-------	23	17	29	19	27	35	31
8	-------	26	18	26	20	28	52	24
9	-------	22	19	25	19	29	51	18
10	-------	20	20	25	20	30	41	17
						31	35	-------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1931-32												
1	16	19	31	142	33	30	221	121	34	23	15	10
2	17	19	23	129	35	28	96	81	34	25	14	19
3	16	18	20	50	39	27	82	54	34	21	12	19
4	14	18	20	31	76	28	68	48	33	22	20	13
5	15	17	25	29	121	30	65	46	38	24	16	13
6	15	15	20	93	54	153	63	54	34	23	11	12
7	15	16	20	290	47	225	59	50	37	26	11	13
8	23	15	16	98	44	53	59	45	28	26	14	8.4
9	35	18	42	154	39	45	73	48	28	23	11	10
10	21	17	60	149	39	39	169	46	28	14	10	10
11	19	16	32	78	40	37	140	47	28	16	20	6.8
12	20	16	30	58	42	36	101	157	35	15	18	8.3
13	16	17	27	52	40	35	75	233	54	13	12	7.8
14	15	16	31	47	35	32	67	79	41	15	9.5	6.8
15	16	15	26	41	34	30	62	61	39	13	12	8.1
16	21	20	21	38	32	29	59	53	43	12	12	11
17	21	15	19	34	44	64	56	49	37	11	11	9.8
18	17	18	20	35	51	64	53	45	33	16	23	7.3
19	15	18	18	30	37	44	55	43	35	9.7	33	7.8
20	17	24	18	31	35	43	51	42	35	11	19	8.6
21	15	23	19	31	31	43	50	42	31	18	13	7.8
22	16	14	24	32	35	237	50	49	30	21	14	10
23	16	19	35	34	32	120	48	39	31	33	13	12
24	13	19	26	38	30	67	46	38	25	19	12	8.2
25	12	19	21	32	28	55	48	38	25	14	10	7.2
26	17	16	21	32	32	54	64	37	23	13	13	8.9
27	16	19	18	61	32	63	59	46	27	14	11	8.8
28	14	21	20	44	32	706	47	51	38	14	9.0	15
29	50	20	17	39	33	148	45	39	26	13	9.8	13
30	30	30	17	59	-------	90	44	36	25	11	12	11
31	21	-------	16	47	-------	110	-------	35	-------	9.7	10	-------

Monthly discharge, in second-feet, of Chester Creek near Chester, 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1931					
August 12-31	140	25	45.6	0.743	0.55
September	34	15	22.7	.370	.41
1931-32					
October	50	12	18.8	.306	.35
November	30	14	18.2	.296	.33
December	60	16	24.3	.396	.46
January	290	29	66.4	1.08	1.24
February	121	28	41.4	.674	.73
March	706	27	89.2	1.45	1.67
April	221	44	72.5	1.18	1.32
May	233	35	59.7	.972	1.12
June	54	23	33.0	.537	.60
July	26	9.7	17.4	.283	.33
August	33	9.0	13.8	.225	.26
September	19	6.8	10.4	.169	.19
The year	706	6.8	38.8	.632	8.60

DELAWARE BASIN—STATION NO. 24

WHITE CLAY CREEK NEAR NEWARK, DEL.

LOCATION.—Water-stage recorder at Baltimore & Ohio Railroad bridge 3½ miles east of Newark, New Castle County.

DRAINAGE AREA.—87.8 square miles.

RECORDS AVAILABLE.—November, 1931, to September, 1932.

EXTREMES.—Maximum stage during period, 11.45 feet Mar. 28 (discharge not determined); minimum discharge, 9.1 second-feet Sept. 18 (gage height, 3.71 feet).

REMARKS.—Records good except those above 250 second-feet and those for estimated periods, which are fair. Discharge estimated Mar. 8-11 because of ice. Low flow affected by regulation from mills upstream from gage.

Daily discharge, in second-feet, 1931-1932.

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	47	161	55	43	274	161	52	37	23	19
2	-------	36	172	55	43	142	124	53	37	23	16
3	-------	32	79	57	43	124	80	48	33	62	18
4	-------	36	56	123	47	105	72	48	34	121	17
5	-------	42	47	166	54	99	69	47	39	32	17
6	-------	34	127	84	207	97	91	59	36	28	20
7	-------	33	326	72	202	89	84	47	41	25	15
8	-------	30	137	68	90	87	70	42	34	24	15
9	-------	66	99	60	70	108	87	42	31	23	14
10	-------	105	195	60	62	198	78	42	30	22	13
11	-------	51	115	60	58	166	75	40	29	39	13
12	-------	48	85	63	57	128	173	58	27	30	15
13	-------	46	77	60	56	106	466	77	27	23	13
14	-------	51	68	52	54	97	164	57	27	22	14
15	-------	43	62	51	55	89	114	150	27	21	13
16	-------	39	57	49	55	87	94	133	27	22	14
17	-------	36	52	78	96	80	85	100	25	19	14
18	-------	35	55	80	124	80	75	126	25	38	12
19	-------	34	48	57	77	78	72	63	25	49	15
20	-------	32	48	52	70	74	70	59	26	28	13
21	-------	33	48	48	70	74	69	55	31	24	14
22	-------	40	47	54	227	72	74	50	30	22	13
23	-------	52	50	50	155	70	66	43	118	21	13
24	-------	43	52	45	94	68	62	39	40	20	14
25	-------	40	48	44	78	74	60	37	30	20	14
26	-------	35	46	48	75	78	59	39	28	18	12
27	-------	32	89	50	91	98	58	40	27	17	16
28	-------	33	60	50	1,280	70	86	64	28	16	18
29	-------	34	59	50	224	68	59	60	29	17	18
30	41	33	92	-------	141	66	55	40	25	18	17
31	-------	33	75	-------	167	-------	51	-------	24	19	-------

Monthly discharge, in second-feet, of White Clay Creek near Newark, Del., 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
November 30	41	41	41.0	0.467	0.02
December	105	30	41.4	.472	.54
January	326	46	88.1	1.00	1.15
February	166	44	63.4	.722	.78
March	1,280	43	134	1.53	1.76
April	274	66	102	1.16	1.29
May	463	51	96.9	1.10	1.27
June	150	37	60.3	.687	.77
July	118	24	33.1	.377	.43
August	121	16	28.6	.326	.38
September	20	12	15.0	.171	.19

DELAWARE BASIN—STATION NO. 25

MILL CREEK AT STANTON, DEL.

LOCATION.—Staff gage at highway bridge one mile west of Stanton, New Castle County.

DRAINAGE AREA.—12.3 square miles.

RECORDS AVAILABLE.—July, 1931, to September, 1932.

EXTREMES.—Maximum stage during period ending Sept. 30, 1931, 3.20 feet Aug. 10 (discharge not determined); minimum discharge, 1.2 second-feet several days in July and August (gage height, 0.56 foot).

Maximum stage during year ending Sept. 30, 1932, 3.45 feet Mar. 28 (discharge not determined); minimum discharge, 0.8 second-foot Sept. 20 (gage height, 0.49 foot).

REMARKS.—Records fair except those above 100 second-feet and those for estimated periods, which may be poor. Discharge estimated Mar. 8, 10, 15 because of ice and Sept. 3-13, 1932, because of backwater from growth on control. Gage-height observer paid by the Pennsylvania Department of Health.

Daily discharge, in second-feet, 1931-1932.

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1931				1931				1931			
1	-------	1.2	4.9	11	-------	14	3.1	21	1.6	4.1	3.3
2	-------	1.3	4.9	12	-------	7.0	3.0	22	2.0	3.4	2.7
3	-------	1.3	4.5	13	-------	3.9	3.0	23	1.5	67	2.6
4	-------	2.6	4.5	14	-------	3.3	2.2	24	15	26	2.9
5	-------	1.4	4.1	15	-------	8.4	2.7	25	8.3	7.8	2.5
6	-------	1.3	3.9	16	-------	3.7	3.0	26	2.2	5.7	12
7	-------	1.2	3.6	17	-------	3.0	3.0	27	1.6	7.0	3.7
8	-------	1.2	3.4	18	-------	2.6	3.1	28	1.4	7.5	3.0
9	-------	1.5	3.3	19	-------	5.3	2.7	29	1.2	18	2.7
10	-------	28	3.3	20	-------	3.0	3.0	30	1.4	8.1	2.9
								31	1.3	5.9	-------

Daily discharge, in second-feet, of Mill Creek at Stanton, Del., 1931-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	3.3	3.4	5.5	28	8.6	6.7	35	20	7.0	5.5	2.7	2.5
2	3.0	3.3	4.7	20	7.2	6.4	23	16	7.0	5.1	2.9	2.3
3	2.7	3.3	4.5	7.8	8.6	6.4	20	11	6.4	4.7	5.9	2.2
4	2.6	3.6	5.5	6.2	28	7.5	17	11	5.9	5.1	20	2.1
5	2.6	3.4	4.3	5.5	21	7.8	17	9.9	5.9	4.7	3.9	2.1
6	2.6	3.3	3.3	44	12	50	16	15	5.9	5.1	3.6	2.3
7	2.7	3.3	3.0	55	11	24	15	13	5.7	4.7	3.4	1.7
8	2.9	3.6	2.7	28	9.9	16	14	10	5.5	4.7	3.3	1.5
9	5.1	4.7	13	40	8.6	12	18	13	5.7	3.9	3.0	1.5
10	5.3	4.7	9.2	30	9.3	10	32	11	5.5	3.6	2.2	1.5
11	3.1	4.5	4.7	17	8.3	9.3	24	11	5.3	3.4	2.5	1.6
12	3.0	4.5	4.5	13	11	8.9	21	36	9.3	3.4	2.3	1.7
13	3.0	4.7	4.3	12	9.3	8.6	17	47	8.9	3.3	2.0	1.6
14	3.1	4.5	5.1	10	8.1	8.1	15	18	8.1	3.3	2.1	1.7
15	3.3	5.1	3.9	9.6	7.5	7.8	14	14	7.0	3.3	2.4	1.8
16	3.9	4.7	3.3	7.8	7.0	7.5	14	12	12	3.0	2.5	1.9
17	3.4	4.7	3.3	8.1	17	19	13	12	8.1	3.1	2.3	1.7
18	3.0	4.7	3.0	7.8	12	13	13	11	12	2.5	5.4	1.6
19	3.3	5.1	3.0	7.6	8.6	9.9	12	9.9	9.3	2.3	5.8	1.3
20	3.3	5.7	3.0	7.0	8.1	9.9	12	9.6	8.3	3.9	3.3	1.2
21	3.3	4.7	2.7	7.0	6.4	10	12	9.3	7.5	3.6	3.0	1.6
22	3.1	4.5	4.7	7.0	8.6	56	11	9.9	7.0	4.3	2.7	1.7
23	3.3	4.3	5.1	7.2	7.5	18	12	8.6	5.9	8.7	2.7	1.7
24	3.3	4.3	3.6	7.5	6.4	13	11	8.6	4.9	4.3	2.7	1.9
25	3.6	4.5	3.3	7.0	7.2	11	11	8.1	5.5	3.6	2.7	1.6
26	3.1	3.9	2.7	5.9	7.5	11	12	7.5	5.5	3.4	2.5	1.7
27	3.3	4.5	2.5	14	7.5	12	11	8.1	5.5	3.6	2.5	2.5
28	3.3	5.1	2.5	8.6	8.1	71	9.9	10	8.3	4.1	2.4	2.7
29	16	5.3	2.7	10	7.5	24	9.9	7.8	6.4	3.3	2.3	2.3
30	3.9	7.0	2.7	16	-------	20	9.9	7.5	6.4	2.7	2.4	2.0
31	3.7	-------	2.5	10	-------	29	-------	7.5	-------	2.7	2.4	-------

Monthly discharge, in second-feet, of Mill Creek at Stanton, Del., 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1931					
July 21-31	65	1.2	3.41	0.277	0.11
August	67	1.2	8.25	.671	0.77
September	12	2.2	3.58	.291	.32
1931-32					
October	16	2.6	3.64	.296	.34
November	7.0	3.3	4.43	.360	.40
December	13	2.5	4.15	.337	.39
January	55	5.5	15.0	1.22	1.41
February	28	6.4	9.96	.810	.87
March	71	6.4	16.3	1.33	1.53
April	35	9.9	15.7	1.28	1.43
May	47	7.5	13.0	1.06	1.22
June	12	5.3	7.06	.574	.64
July	8.7	2.3	3.96	.322	.37
August	2.0	2.0	3.54	.288	.33
September	2.7	1.2	1.85	.150	.17
The year	71	1.2	8.21	.667	9.10

BRANDYWINE CREEK AT CHADDS FORD

LOCATION.—Water-stage recorder at Pennsylvania Railroad bridge, Chadds Ford, Delaware County. Zero of gage is 150.18 feet above mean sea level.

DRAINAGE AREA.—285 square miles.

RECORDS AVAILABLE.—August, 1911, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 9,380 second-feet Feb. 27 (gage height, 9.77 feet); minimum, 31 second-feet Jan. 29 (gage height, 0.40 foot).

Maximum discharge during year ending Sept. 30, 1930, 6,000 second-feet Oct. 2 (gage height, 8.47 feet); minimum, 24 second-feet Aug. 4 (gage height, 0.40 foot).

Maximum discharge during year ending Sept. 30, 1931, about 10,900 second-feet July 10 (gage height, 10.80 feet); minimum, 18 second-feet Jan. 22 (gage height, 0.34 foot).

Maximum discharge during year ending Sept. 30, 1932, 7,510 second-feet Mar. 28 (gage height, 9.06 feet); minimum, 22 second-feet Sept. 14, 23 (gage height, 0.38 foot).

1911-1932: Maximum discharge, about 24,000 second-feet (revised) Mar. 5, 1920 (gage height, 15.0 feet from high water mark); minimum, that of Jan. 22, 1931.

REMARKS.—Records good except those for high stages and for estimated periods, which are fair. Regulation at low stages by mills above station. Well and shelter for water-stage recorder furnished by Water Department of Wilmington, Del.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	524	256	589	367	220	915	349	524	367	230	126	91
2	404	263	349	634	200	1,310	332	545	332	243	140	90
3	385	280	280	314	190	1,110	314	1,010	332	213	145	82
4	367	385	270	266	180	1,060	314	657	332	196	502	86
5	349	404	263	246	180	2,300	422	567	332	193	177	93
6	367	332	256	1,060	180	1,740	442	567	332	680	140	123
7	349	297	230	524	2,100	1,060	349	868	314	297	126	110
8	332	297	233	280	680	680	314	567	461	220	120	148
9	314	280	226	214	385	657	297	502	404	203	116	187
10	314	266	213	727	524	545	332	482	332	236	116	128
11	297	256	220	545	332	524	332	461	314	190	233	110
12	297	263	213	332	280	502	1,160	442	297	170	422	95
13	297	277	220	297	253	524	634	634	280	164	174	95
14	280	263	260	246	260	657	442	524	273	177	297	223
15	280	256	461	220	233	657	404	502	482	167	404	196
16	297	256	314	240	249	634	2,660	461	367	148	174	128
17	297	253	280	240	233	524	2,810	404	297	142	137	114
18	297	246	367	270	236	442	1,010	404	273	137	126	118
19	367	256	297	349	233	422	774	1,160	297	314	120	105
20	314	314	263	332	233	422	680	1,160	657	200	114	93
21	297	277	243	280	213	404	727	727	367	167	107	91
22	280	263	206	253	253	404	1,310	634	314	161	103	91
23	280	253	203	280	239	404	821	502	280	170	114	90
24	297	236	196	280	230	404	657	482	266	151	126	90
25	280	233	203	482	256	367	634	634	314	142	116	86
26	270	230	206	422	2,660	385	774	461	297	180	105	84
27	263	226	216	280	4,980	385	612	442	246	142	99	84
28	273	226	239	220	1,980	367	567	422	260	137	95	80
29	273	230	230	180	-------	332	589	422	280	154	93	86
30	266	270	220	200	-------	332	524	404	236	314	93	116
31	263	-------	206	240	-------	349	-------	385	-------	151	90	-------

Daily discharge, in second-feet, of Brandywine Creek at Chadds Ford, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	264	277	234	384	215	442	336	287	202	205	86	67
2	2,410	249	202	354	247	450	336	294	190	316	82	93
3	1,540	819	212	415	303	403	322	274	182	171	84	116
4	497	819	202	384	442	373	329	250	174	144	75	102
5	347	399	208	284	1,290	365	318	244	171	134	75	78
6	253	298	215	257	774	380	349	244	168	184	75	71
7	218	263	234	270	450	398	1,680	240	232	378	71	73
8	193	244	284	287	392	1,970	723	227	199	165	69	75
9	174	234	287	294	358	946	462	221	206	138	71	73
10	168	221	237	280	380	607	395	212	426	141	69	69
11	183	208	227	240	347	576	388	208	301	144	67	65
12	157	212	212	260	322	693	376	202	205	131	69	65
13	160	208	227	308	1,330	544	361	205	185	124	65	158
14	160	221	301	446	1,260	482	365	234	176	124	67	526
15	154	259	284	662	650	450	354	513	174	121	86	152
16	149	234	250	430	478	450	388	388	160	111	104	118
17	146	218	227	318	413	446	426	270	154	104	98	152
18	144	1,160	492	290	442	442	462	237	163	102	86	131
19	141	754	652	270	470	662	502	247	222	104	84	91
20	138	380	392	250	565	523	392	267	176	100	82	82
21	141	318	284	240	523	438	351	234	152	95	80	80
22	232	280	237	230	462	407	354	208	141	119	80	82
23	496	270	225	220	438	392	322	196	138	227	93	78
24	221	267	220	215	434	392	315	358	138	141	91	73
25	190	260	220	215	688	395	312	1,090	144	173	80	172
26	168	250	220	210	628	470	312	378	173	116	82	107
27	152	244	230	210	704	411	301	270	624	107	78	84
28	152	237	277	210	482	373	294	263	205	95	155	80
29	146	218	484	210	-------	358	291	291	154	104	93	67
30	163	152	467	210	-------	361	287	250	146	98	75	71
31	305	-------	354	210	-------	347	-------	218	-------	89	73	-------
1930–31												
1	67	82	102	109	93	138	455	134	1,160	118	154	168
2	69	84	93	102	98	174	865	138	399	121	154	157
3	67	73	84	95	91	152	392	152	280	124	152	437
4	65	82	82	98	89	134	298	138	230	126	152	294
5	69	100	84	150	86	126	247	131	208	131	141	196
6	61	100	84	1,340	88	118	224	124	190	134	136	176
7	69	89	93	354	82	111	269	470	213	424	128	157
8	71	78	89	165	89	813	370	948	879	327	126	144
9	69	82	86	348	540	741	253	452	339	178	318	138
10	71	80	86	126	711	287	215	314	253	5,650	814	134
11	67	84	82	109	205	199	212	805	244	1,060	1,540	134
12	67	89	84	116	152	171	190	417	215	523	450	128
13	62	84	82	128	174	154	176	415	188	376	308	126
14	71	100	82	106	193	144	165	392	174	318	230	121
15	80	121	82	91	140	141	157	354	168	335	205	141
16	82	124	69	90	134	152	152	270	768	267	185	144
17	71	132	71	95	246	190	146	224	751	244	163	136
18	75	356	80	98	1,190	247	146	205	277	265	154	136
19	73	124	82	1,530	356	282	141	190	205	313	146	128
20	66	107	84	694	221	284	136	182	176	287	146	134
21	72	95	82	227	185	224	134	708	160	507	163	136
22	73	91	78	135	163	185	136	476	149	250	171	131
23	75	89	86	134	152	170	237	520	160	208	626	124
24	75	89	80	116	146	152	185	354	193	627	428	118
25	78	100	71	109	136	157	154	280	165	280	234	107
26	78	91	100	109	128	171	181	257	146	205	196	144
27	73	84	1,200	109	126	149	282	227	144	185	206	171
28	80	70	485	114	118	147	179	202	128	179	307	136
29	89	75	202	111	-------	849	152	185	124	182	288	121
30	84	78	152	104	-------	446	138	179	124	190	234	109
31	93	-------	114	102	-------	254	-------	400	-------	165	185	-------

Daily discharge, in second-feet, of Brandywine Creek at Chadds Ford, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	111	126	155	322	177	176	1,230	612	182	134	79	71
2	114	111	127	819	185	160	715	640	176	136	82	68
3	109	114	114	357	195	163	607	347	176	126	90	68
4	104	107	118	212	296	163	502	291	174	131	107	69
5	109	105	157	174	642	174	470	277	208	146	94	68
6	109	102	144	339	317	366	458	301	212	138	87	65
7	105	100	121	1,250	260	525	426	298	182	146	109	65
8	117	104	107	523	240	272	411	267	154	128	99	58
9	143	101	162	689	221	235	434	291	149	114	124	54
10	136	107	337	556	212	210	763	280	146	107	89	52
11	121	102	199	389	221	196	886	277	141	100	140	50
12	106	106	171	308	227	185	621	489	178	100	123	53
13	108	107	157	284	220	178	482	940	227	102	90	50
14	105	101	152	253	202	173	434	488	188	98	82	52
15	107	109	138	230	185	171	399	354	182	94	73	57
16	131	100	126	215	185	178	376	308	219	89	76	55
17	128	110	118	196	227	279	358	284	176	93	73	55
18	111	108	111	196	292	515	347	257	196	89	151	48
19	106	112	114	185	218	352	336	244	185	85	311	53
20	111	114	109	174	193	428	322	237	171	90	120	52
21	104	108	106	176	176	322	318	234	165	103	100	53
22	103	109	124	171	186	705	312	294	160	104	82	52
23	101	101	176	179	182	919	304	253	144	185	83	50
24	102	105	168	208	168	407	287	224	131	124	76	51
25	107	105	131	188	164	326	298	218	126	100	75	57
26	91	100	114	174	174	308	329	208	128	93	72	55
27	105	106	107	275	179	376	326	219	206	94	70	66
28	97	115	109	234	182	4,180	287	258	322	114	89	88
29	102	118	113	196	185	1,530	270	202	203	97	83	80
30	170	141	107	270	-------	781	260	190	146	89	78	68
31	134	-------	107	271	-------	764	-------	182	-------	86	71	-------

Note.—Discharge estimated because of ice Jan. 15-17, Jan. 28 to Feb. 6, Dec. 23-27, 1929, Jan. 18 to Feb. 1, 1930, Jan. 16, 1931, Mar. 9, 10, 12-14, 1932.

Monthly discharge, in second-feet, of Brandywine Creek at Chadds Ford, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	524	263	315	1.11	1.28
November	404	226	271	.951	1.06
December	589	196	264	.926	1.07
January	1,060	180	352	1.24	1.43
February	4,930	180	648	2.27	2.36
March	2,300	332	672	2.36	2.72
April	2,810	297	720	2.53	2.82
May	1,160	385	579	2.03	2.34
June	657	236	331	1.16	1.29
July	680	137	206	.723	.83
August	502	90	163	.572	.66
September	223	80	110	.386	.43
The year	4,930	80	384	1.35	18.29
1929–30					
October	2,410	138	319	1.12	1.29
November	1,160	152	339	1.19	1.33
December	652	202	284	.996	1.15
January	662	210	292	1.02	1.18
February	1,330	215	553	1.94	2.02
March	1,970	247	514	1.80	2.08
April	1,680	287	414	1.45	1.62
May	1,090	196	291	1.02	1.18
June	624	138	203	.712	.79
July	378	89	145	.509	.59
August	155	65	82.1	.288	.33
September	526	65	108	.379	.42
The year	2,410	65	294	1.03	13.98
1930–31					
October	93	61	73.0	.256	.30
November	356	70	101	.354	.40
December	1,200	69	140	.491	.57
January	1,530	90	229	.804	.93
February	1,190	82	213	.768	.80
March	849	111	247	.867	1.00
April	868	134	233	.818	.91
May	948	124	330	1.16	1.34
June	1,160	124	294	1.03	1.15
July	5,650	118	461	1.62	1.87
August	1,540	126	285	1.00	1.15
September	437	107	154	.540	.60
The year	5,650	61	231	.811	11.02
1931–32					
October	192	91	116	.407	.47
November	141	100	108	.389	.43
December	337	106	138	.484	.56
January	1,250	171	323	1.13	1.30
February	642	164	224	.786	.85
March	4,180	160	507	1.78	2.05
April	1,230	260	452	1.59	1.77
May	940	182	321	1.13	1.30
June	322	126	178	.625	.70
July	185	85	111	.389	.45
August	311	70	99.3	.348	.40
September	88	50	59.4	.208	.23
The year	4,180	50	220	.772	10.51

LEIPSIC RIVER NEAR CHESWOLD, DEL.

LOCATION.—Staff gage at highway bridge 2½ miles west of Cheswold, Kent County.

DRAINAGE AREA.—9.21 square miles.

RECORDS AVAILABLE.—July, 1931, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1931, 99 second-feet Aug. 23 (gage height, 3.30 feet); minimum, 0.9 second-foot Aug. 19 (gage height, 0.72 foot).

Maximum discharge during year ending Sept. 30, 1932, about 240 second-feet May 12, 13 (gage height, determined from hydrograph, 5.0 feet); minimum, 1.8 second-feet Aug. 17 (gage height, 0.70 foot).

REMARKS.—Records fair. Stage-discharge relation affected by ice Mar. 11-15, 1932. Gage height observer paid by Pennsylvania Department of Health.

Daily discharge, in second-feet, 1931-1932.

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1931				1931				1931			
1	-------	2.0	5.2	11	-------	2.4	4.1	21	-------	5.0	3.3
2	-------	2.0	4.8	12	-------	15	4.0	22	-------	4.3	3.0
3	-------	2.0	4.8	13	-------	21	4.0	23	2.3	66	3.1
4	-------	2.3	5.8	14	-------	3.1	4.0	24	2.8	53	3.4
5	-------	2.8	4.7	15	-------	7.6	3.8	25	2.5	13	4.6
6	-------	2.8	4.1	16	-------	4.6	3.8	26	2.2	6.5	7.2
7	-------	2.3	3.8	17	-------	1.7	3.7	27	2.0	11	6.4
8	-------	2.0	3.7	18	-------	1.4	3.6	28	2.0	27	4.1
9	-------	2.0	4.3	19	-------	1.2	3.6	29	2.0	11	3.8
10	-------	2.9	4.3	20	-------	4.1	3.6	30	2.3	7.7	3.4
								31	2.2	6.0	-------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	3.0	3.6	5.3	16	7.0	6.8	37	11	8.5	5.2	2.8	2.8
2	3.3	3.7	4.3	14	8.9	9.4	17	10	7.4	4.4	2.8	2.6
3	3.3	3.8	4.1	5.3	10	10	1[illegible]	8.0	5.9	3.8	4.6	2.3
4	3.3	[illegible].8	4.8	4.8	28	16	11	7.6	5.0	7.2	3.4	2.0
5	3.3	3.8	5.2	4.8	28	29	11	6.6	4.3	6.5	3.0	2.0
6	3.1	3.8	4.6	11	11	123	11	12	4.8	6.4	3.0	2.0
7	3.0	3.7	4.0	19	10	76	10	8.2	4.0	5.0	3.4	2.4
8	2.9	3.3	3.6	26	9.3	22	9.5	7.2	3.4	6.0	2.9	2.3
9	5.4	3.3	9.0	27	7.9	14	15	9.6	3.4	6.2	2.8	2.3
10	3.6	3.6	7.8	28	8.0	9.3	49	9.5	3.0	4.3	2.5	2.3
11	3.4	3.6	6.4	18	8.4	8.7	36	9.6	3.7	3.7	2.3	2.2
12	3.0	3.6	5.4	11	8.8	8.4	24	60	9.8	3.7	2.0	2.3
13	2.9	3.8	4.7	10	10	8.2	16	132	10	3.6	2.0	2.4
14	3.0	3.6	4.8	9.5	9.2	8.0	16	49	8.0	3.4	2.0	2.2
15	3.3	3.8	4.3	8.8	8.4	7.9	13	16	14	3.6	2.0	2.2
16	6.5	3.8	4.1	8.0	7.7	7.9	12	13	18	3.6	2.0	5.0
17	6.0	3.7	4.1	7.6	7.4	12	12	13	13	3.6	1.9	3.0
18	3.8	3.8	4.1	8.0	14	13	12	12	16	3.6	4.1	2.9
19	3.6	4.0	4.1	7.9	11	11	11	12	11	3.6	3.7	2.8
20	3.6	4.4	4.1	7.1	9.2	11	10	12	9.6	4.7	3.3	2.8
21	3.3	4.3	4.1	6.6	9.0	10	10	12	6.6	6.4	3.3	2.8
22	3.3	4.1	9.0	7.0	8.8	33	9.8	11	5.9	5.3	3.3	2.8
23	3.3	4.1	8.9	7.2	7.9	26	9.6	9.3	5.6	4.8	3.4	7.6
24	3.3	4.0	6.5	7.0	7.6	15	10	13	5.4	3.1	3.6	12
25	3.3	3.8	4.1	7.0	7.6	12	12	7.5	5.4	3.1	3.8	4.1
26	3.3	3.8	3.7	7.0	7.4	10	14	6.8	5.4	3.3	3.4	3.7
27	3.1	4.1	3.7	10	7.4	13	14	11	9.0	5.6	3.1	3.6
28	3.1	4.8	3.7	7.1	7.4	60	11	14	10	7.4	2.8	3.6
29	4.6	4.7	3.8	8.4	7.1	28	9.2	13	7.1	3.3	2.6	3.6
30	4.8	6.2	3.7	11	-------	14	9.2	11	5.4	3.1	6.2	3.6
31	3.8	-------	3.7	9.3	-------	35	-------	9.8	-------	3.1	5.3	-------

Monthly discharge, in second-feet, of Leipsic River near Cheswold, Del., 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1931					
July 23-31	2.8	2.0	2.26	0.245	0.08
August	66	1.2	9.54	1.04	1.20
September	7.2	3.0	4.20	.456	.51
1931-32					
October	6.5	2.9	3.63	.394	.45
November	6.2	3.3	3.95	.429	.48
December	9.0	3.6	4.96	.539	.62
January	28	4.8	10.9	1.18	1.36
February	28	7.0	9.91	1.08	1.16
March	123	6.8	21.5	2.33	2.69
April	49	3.2	15.1	1.64	1.83
May	132	6.6	17.3	1.88	2.17
June	18	3.0	7.62	.827	.92
July	7.4	3.1	4.54	.493	.57
August	6.2	1.9	3.14	.341	.39
September	12	2.0	3.27	.355	.40
The year	132	1.9	8.84	.960	13.04

DELAWARE BASIN—STATION NO. 28

MURDERKILL RIVER NEAR FELTON, DEL.

LOCATION.—Staff gage at highway bridge, 2.2 miles south of Felton, Kent County.

DRAINAGE AREA.—14.4 square miles.

RECORDS AVAILABLE.—July, 1931, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1931, 107 second-feet Aug. 23 (gage height, 3.00 feet); minimum, 1.5 second-feet Aug. 4 (gage height, 0.49 foot).

Maximum discharge during year ending Sept. 30, 1932, about 434 second-feet May 13 (gage height, estimated from hydrograph, 4.36 feet); minimum, 1.3 second-feet several times in September (gage height, 0.48 foot).

REMARKS.—Records fair. Discharge estimated because of no gage-height record Nov. 4, 9. Gage-height observer paid by Pennsylvania Department of Health.

Daily discharge, in second-feet, 1931-1932.

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1931											
1	-------	1.7	5.0	11	-------	5.2	3.9	21	-------	8.4	3.1
2	-------	1.8	4.7	12	-------	10	3.9	22	2.2	18	3.2
3	-------	1.8	5.9	13	-------	3.2	5.0	23	2.2	74	3.4
4	-------	1.6	7.1	14	-------	20	5.0	24	2.4	80	3.5
5	-------	2.8	5.2	15	-------	37	3.5	25	2.3	40	3.4
6	-------	2.1	4.5	16	-------	5.9	3.6	26	2.1	16	15
7	-------	1.6	4.4	17	-------	3.1	3.8	27	2.0	9.5	7.9
8	-------	1.6	4.2	18	-------	2.8	3.6	28	1.8	8.1	4.1
9	-------	1.8	2.9	19	-------	2.4	3.5	29	1.7	10	3.4
10	-------	2.0	4.1	20	-------	2.8	3.8	30	2.0	7.3	3.5
								31	1.7	5.6	-------

Daily discharge, in second-feet, of Murderkill River near Felton, Del., 1931-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	2.8	4.8	6.4	17	9.8	11	72	15	6.0	7.2	2.5	3.1
2	3.1	4.6	4.5	20	11	10	47	16	5.7	5.8	2.5	2.4
3	3.4	4.8	4.3	9.7	15	10	35	10	5.2	5.3	3.0	2.3
4	3.1	4.7	4.3	6.0	54	19	26	8.7	5.0	7.8	3.2	1.9
5	3.1	4.5	4.0	5.0	103	27	21	8.2	4.8	7.4	2.5	2.0
6	2.4	4.4	4.0	6.7	42	64	[illegible]	9.3	4.8	9.1	2.5	2.4
7	2.3	4.4	4.2	12	30	108	20	8.0	4.6	6.8	3.0	2.0
8	3.1	4.7	4.0	15	24	54	19	7.2	4.2	7.4	2.8	2.0
9	4.5	5.2	7.8	35	21	39	21	8.2	4.2	5.8	2.7	2.0
10	3.7	5.3	5.2	68	17	30	50	7.8	4.0	5.2	2.5	1.9
11	3.4	5.3	4.8	45	17	22	60	7.6	3.8	5.0	2.3	1.9
12	2.8	5.2	4.3	28	19	21	57	68	12	4.8	2.3	1.9
13	3.1	4.8	4.0	26	20	20	37	296	12	4.5	2.2	1.6
14	3.0	5.2	4.0	21	16	19	26	94	11	4.5	2.0	1.4
15	2.4	5.2	4.0	19	14	18	21	45	11	4.3	1.9	1.5
16	6.5	5.0	5.7	15	14	14	19	27	49	4.6	1.9	2.8
17	4.5	5.2	3.7	14	28	19	17	20	19	4.6	1.9	1.9
18	3.4	5.2	3.6	14	31	22	16	35	11	4.2	2.7	1.6
19	2.8	7.0	3.6	11	21	17	15	28	12	3.8	3.0	1.6
20	2.8	5.3	3.6	10	17	16	14	19	10	4.2	2.3	1.6
21	2.7	4.8	3.6	9.8	15	14	12	16	8.0	11	2.4	1.4
22	2.5	4.8	21	9.8	17	36	11	16	7.0	5.2	2.2	1.4
23	3.0	4.6	17	9.3	16	43	10	14	6.4	4.3	1.9	1.4
24	3.6	4.6	7.0	8.7	14	24	10	10	5.7	3.7	1.9	1.4
25	3.4	4.6	5.0	8.2	12	19	12	7.8	5.2	3.6	1.9	1.3
26	3.8	4.3	4.3	7.6	12	16	17	7.0	5.5	3.4	1.9	1.4
27	4.3	4.5	3.8	14	12	16	14	7.8	5.5	3.2	1.6	1.8
28	4.8	4.5	3.6	10	12	120	10	15	11	3.4	1.8	2.4
29	7.8	4.3	3.6	14	11	96	9.5	9.3	9.0	3.2	1.6	1.6
30	7.1	6.8	3.6	20	-------	44	9.1	7.4	6.6	2.5	6.1	1.4
31	5.8	-------	3.6	15	-------	40	-------	6.6	-------	2.5	2.5	-------

Monthly discharge, in second-feet, of Murderkill River near Felton, Del., 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1931					
July 22-31	2.4	1.7	2.04	0.142	0.05
August	80	1.6	12.5	.868	1.00
September	15	2.9	4.60	.319	.36
1931-32					
October	7.8	2.3	3.71	.258	.30
November	7.0	4.3	4.95	.344	.38
December	21	3.6	5.40	.375	.43
January	68	5.0	17.4	1.21	1.40
February	103	9.8	22.2	1.54	1.66
March	108	10	35.0	2.43	2.80
April	72	9.1	24.4	1.68	1.87
May	296	6.6	27.6	1.92	2.21
June	49	3.8	8.97	.622	.69
July	11	2.5	5.11	.355	.41
August	6.1	1.6	2.44	.169	.19
September	3.1	1.3	1.84	.128	.14
The year	296	1.3	13.2	.916	12.50

SUSQUEHANNA BASIN

NORTH BRANCH OF SUSQUEHANNA RIVER AT BINGHAMTON, N. Y.

LOCATION.—Chain gage at Washington Street Bridge at Binghamton, Broome County, 500 feet upstream from mouth of Chenango River. Zero of gage is 821.49 feet above mean sea level.

DRAINAGE AREA.—2,400 square miles.

RECORDS AVAILABLE.—July, 1901, to December, 1912; January, 1915, to September. 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 18.00 feet, determined from hydrograph, Mar. 16; minimum, 1.70 feet Sept. 8.

Maximum stage during year ending Sept. 30, 1930, about 9.7 feet Feb. 22, affected by ice; 8.90 feet Mar. 9, free flow; minimum, 1.58 feet Aug. 16, 20.

Maximum stage during year ending Sept. 30, 1931, 11.41 feet Mar. 27; minimum, 1.62 feet Nov. 16.

Maximum stage during year ending Sept. 30, 1932, 12.22 feet Apr. 3; minimum, 1.83 feet Oct. 27.

1901-1912, 1915-1932: Maximum stage, that of Mar. 16, 1929; minimum, 1.5 feet Sept. 20, 1908.

Maximum stage known, 23.5 feet Mar. 17, 1865.

REMARKS.—Records good. Gage heights obtained at this station for flood warning purposes. Discharge not determined.

Daily mean gage height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	2.09	2.27	5.20	2.38	2.51	6.20	4.60	5.65	3.22	2.63	1.92	1.89
2	2.10	2.28	6.42	2.36	2.52	4.60	4.57	5.15	3.04	2.66	1.92	1.86
3	2.01	2.22	5.10	2.36	2.58	3.80	4.42	9.25	2.93	2.62	1.90	1.85
4	1.98	2.25	4.13	2.45	2.59	3.55	4.14	9.31	2.79	2.46	1.92	1.79
5	2.07	2.29	3.81	2.52	2.73	3.75	5.40	8.02	2.85	2.32	1.96	1.76
6	2.06	2.35	3.61	2.27	2.46	4.49	8.28	7.71	2.73	2.26	2.02	1.76
7	2.07	2.35	3.38	3.10	2.41	4.74	8.60	7.55	2.72	2.26	1.90	1.72
8	2.00	2.33	3.08	3.35	2.60	3.86	8.23	6.94	2.70	2.23	1.88	1.70
9	2.02	2.30	2.88	2.88	2.77	3.60	6.83	6.01	2.64	2.21	1.86	1.72
10	2.01	2.24	2.82	2.68	2.76	3.28	6.55	5.32	2.60	2.18	1.84	1.76
11	1.92	2.26	2.62	2.59	2.92	3.12	6.65	4.80	2.52	2.20	1.84	1.78
12	1.93	2.27	2.83	2.61	2.80	3.09	6.85	4.38	2.50	2.25	1.82	1.85
13	1.98	2.25	2.65	2.63	2.86	4.58	9.00	4.25	2.45	2.22	1.87	1.79
14	1.95	2.23	2.68	2.79	2.48	10.00	8.90	4.12	2.43	2.16	1.89	1.79
15	1.94	2.25	2.60	2.36	2.56	16.00	7.48	5.02	2.37	2.11	2.36	1.96
16	1.98	2.25	2.61	2.24	2.91	17.62	8.30	5.35	2.33	2.14	2.16	2.07
17	2.01	2.28	2.53	2.29	2.90	16.50	9.20	5.12	2.31	2.02	2.03	2.02
18	1.98	2.26	2.64	2.27	2.35	12.00	8.50	4.50	2.30	2.00	1.99	2.06
19	2.02	2.26	2.82	3.70	2.62	8.20	7.60	4.38	2.27	2.09	1.92	2.00
20	2.21	2.41	2.91	5.60	2.49	6.98	8.90	5.32	2.24	2.05	1.88	1.98
21	2.48	2.62	2.74	3.95	2.69	6.48	14.15	5.81	2.26	2.04	1.86	1.96
22	2.36	2.66	2.73	2.72	2.42	6.30	15.60	3.38	2.31	2.02	1.84	1.94
23	2.24	2.63	2.76	2.86	2.54	6.95	13.42	5.41	2.25	2.00	1.84	1.91
24	2.29	2.55	2.71	2.83	2.57	7.28	10.72	4.71	2.22	2.00	1.79	1.84
25	2.37	2.54	2.55	2.75	2.30	6.90	8.88	5.04	2.28	1.94	1.82	1.81
26	2.38	2.49	2.46	2.88	2.65	6.95	9.15	4.72	2.25	2.00	2.06	1.86
27	2.33	2.44	2.38	2.86	4.15	7.35	8.54	4.26	2.35	1.96	2.00	1.81
28	2.31	2.40	2.40	2.74	5.45	6.30	7.40	3.95	2.37	1.93	1.90	1.75
29	2.27	2.40	2.48	2.58	------	5.62	6.76	3.92	2.45	2.04	1.82	1.72
30	2.31	2.58	2.62	2.57	-------	5.16	6.36	3.70	2.62	2.12	1.87	1.76
31	2.24	-------	2.51	2.63	-------	4.88	-------	3.40	-------	1.94	1.84	-------

Daily mean gage height, in feet, of North Branch of Susquehanna River at Binghamton, N. Y., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1.74	2.20	2.93	3.47	7.57	5.00	3.61	2.69	3.31	2.16	1.79	1.86
2	2.30	2.22	2.57	3.85	7.47	4.92	3.55	2.62	3.03	2.14	1.79	1.67
3	3.25	2.26	2.61	6.07	7.47	4.95	3.70	2.79	2.80	2.29	1.86	1.70
4	4.55	2.47	2.81	6.37	7.47	4.25	3.49	3.04	2.75	2.25	1.82	1.90
5	3.60	2.57	2.61	5.01	7.27	3.85	3.35	3.01	2.60	2.16	1.82	1.94
6	2.92	2.58	2.53	4.01	7.17	3.86	3.32	2.68	2.52	2.13	1.78	1.94
7	2.62	2.56	2.48	4.32	7.07	3.97	5.57	2.68	2.51	2.16	1.72	1.88
8	2.46	2.46	2.74	5.57	7.02	6.51	7.12	2.64	2.49	2.08	1.68	1.86
9	2.38	2.41	2.90	7.37	6.97	8.77	6.46	2.64	2.49	2.06	1.62	1.80
10	2.35	2.34	2.88	7.37	6.95	7.55	5.62	2.55	2.72	2.22	1.76	1.78
11	2.30	2.34	2.76	6.53	6.83	6.57	5.12	2.51	3.57	2.30	1.76	1.77
12	2.25	2.34	2.72	5.37	6.77	7.02	4.79	2.51	3.37	2.12	1.70	1.72
13	2.19	2.36	2.47	6.66	6.68	7.12	4.71	2.39	2.86	2.07	1.64	1.62
14	2.16	2.38	3.37	8.25	6.67	6.67	4.61	2.43	2.67	2.27	1.69	1.81
15	2.14	2.62	3.92	8.28	6.65	5.84	4.21	2.50	2.52	2.33	1.62	1.86
16	2.14	3.15	3.78	7.77	6.67	5.12	3.84	2.70	2.41	2.18	1.72	2.66
17	2.16	3.23	3.65	6.47	6.53	5.02	3.66	2.77	2.36	2.16	1.76	2.40
18	2.15	4.90	6.17	5.04	6.46	6.37	3.45	2.67	2.72	2.13	1.74	2.16
19	2.18	6.77	8.13	4.27	6.32	7.69	3.42	2.59	3.77	2.06	1.69	2.08
20	2.15	6.01	9.22	3.78	6.17	7.35	3.28	2.75	3.41	2.03	1.58	2.01
21	2.14	4.71	7.84	3.95	6.66	6.19	3.27	2.90	2.90	1.98	1.67	1.96
22	2.12	4.01	5.91	4.94	8.34	5.32	3.13	2.85	2.67	1.84	1.66	1.88
23	2.22	3.52	4.59	6.27	7.55	4.59	3.05	2.71	2.38	1.97	1.70	1.80
24	2.34	3.17	4.15	7.87	7.18	4.17	3.10	2.72	2.31	1.92	1.81	1.75
25	2.33	3.03	3.49	9.17	7.37	4.13	3.03	3.82	2.24	1.94	1.80	1.76
26	2.30	3.01	3.98	9.22	8.38	4.97	2.96	3.73	2.20	2.00	1.82	1.78
27	2.26	2.91	3.85	8.67	6.98	5.25	3.01	3.43	2.53	1.98	1.82	1.80
28	2.26	2.88	4.01	8.47	5.52	4.60	2.92	3.25	2.34	1.90	1.82	1.80
29	2.14	2.81	3.91	8.37	-------	4.08	2.84	4.47	2.28	1.85	1.82	1.80
30	2.09	2.88	3.64	7.97	-------	3.88	2.72	4.30	2.24	1.86	1.80	1.84
31	2.12	-------	3.34	7.77	-------	3.77	-------	3.71	-------	1.79	1.81	-------
1930-31												
1	1.82	1.84	1.86	2.00	2.22	2.70	7.70	4.40	3.32	2.20	2.58	2.24
2	1.78	1.83	1.95	2.29	2.02	2.78	8.25	4.00	3.18	2.13	2.54	2.19
3	1.76	1.80	2.08	2.03	2.11	2.78	8.14	3.86	3.03	2.14	2.44	2.14
4	1.76	1.78	2.24	1.92	2.09	2.67	7.94	3.62	2.88	2.12	2.40	2.18
5	1.74	1.68	2.27	2.00	2.16	2.60	7.90	3.46	2.74	2.11	2.38	2.22
6	1.70	1.70	2.21	2.19	2.00	2.64	7.24	3.40	2.54	2.02	2.44	2.23
7	1.69	1.72	2.22	2.16	2.07	2.59	6.98	3.15	2.56	2.13	2.41	2.20
8	1.69	1.72	2.20	2.22	2.15	2.60	7.30	3.00	2.80	2.12	2.30	2.14
9	1.68	1.68	2.20	2.25	2.01	2.94	8.39	3.90	3.02	2.26	2.32	2.09
10	1.68	1.70	2.19	2.04	2.05	2.94	8.87	4.36	3.04	2.72	2.37	2.04
11	1.68	1.70	2.21	2.00	2.10	2.78	9.99	4.05	2.74	3.43	2.44	2.01
12	1.66	1.72	2.22	2.04	2.08	2.70	10.61	4.04	2.72	4.80	2.34	2.01
13	1.66	1.70	2.21	2.06	2.00	2.66	9.02	4.16	2.62	3.82	2.34	1.98
14	1.67	1.73	2.20	2.10	2.00	2.56	7.28	4.94	2.52	3.16	2.32	1.95
15	1.66	1.66	2.30	2.09	2.46	2.63	6.18	4.54	2.42	2.86	2.26	1.94
16	1.66	1.62	2.30	2.15	2.40	2.75	5.48	4.11	2.39	2.69	2.27	1.98
17	1.66	1.70	2.24	1.98	2.42	2.72	4.90	4.71	2.34	2.75	2.22	1.97
18	1.66	1.86	2.09	1.94	2.78	2.96	4.52	4.84	2.62	2.65	2.24	2.17
19	1.64	1.88	2.10	1.92	3.13	3.08	4.19	4.26	2.84	2.57	2.15	2.16
20	1.64	1.82	2.12	1.93	3.15	2.96	3.91	3.78	2.54	2.52	2.16	2.12
21	1.65	1.86	2.12	1.96	2.95	3.18	3.66	4.78	2.51	2.88	2.14	2.04
22	1.68	1.84	2.02	2.07	2.88	3.76	3.45	5.06	2.57	4.72	2.08	2.02
23	1.70	1.90	2.04	1.95	2.83	4.54	3.38	4.48	2.48	5.62	2.04	2.15
24	1.72	1.86	2.04	1.99	2.73	5.85	3.81	5.48	2.50	4.48	2.02	2.23
25	1.70	1.89	2.14	1.95	2.76	8.20	3.90	6.32	2.34	3.63	2.02	2.21
26	1.70	1.83	2.00	1.93	2.71	10.01	3.63	7.72	2.38	3.31	2.01	2.17
27	1.72	1.80	1.98	1.97	2.72	11.10	3.64	5.85	2.34	3.07	2.00	2.12
28	1.75	1.80	2.04	1.99	2.82	10.90	3.84	4.65	2.46	2.82	2.14	2.10
29	1.73	1.74	2.01	2.03	-------	11.10	4.14	4.00	2.31	2.72	2.27	2.16
30	1.76	1.90	2.00	2.12	-------	11.07	4.98	3.58	2.31	2.65	2.56	2.17
31	1.74	-------	2.10	2.05	-------	9.24	-------	3.50	-------	2.76	2.41	-------

Daily mean gage height, in feet, of North Branch of Susquehanna River at Binghamton, N. Y., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	2.14	2.22	2.51	3.08	5.80	3.20	11.80	3.28	2.42	2.41	2.42	2.14
2	2.10	2.34	2.73	2.97	5.15	3.02	11.43	3.64	2.44	2.54	2.26	2.28
3	2.06	2.27	2.76	3.05	4.58	2.97	12.12	3.78	2.35	4.38	2.30	2.50
4	2.04	2.24	2.61	3.01	4.08	3.18	11.56	3.52	2.29	3.84	2.22	2.34
5	1.97	2.20	2.85	2.93	4.51	3.28	9.84	3.30	2.42	3.70	2.34	2.26
6	1.88	2.20	3.51	3.25	4.10	3.27	9.14	3.16	2.92	3.46	2.57	2.14
7	1.96	2.19	3.18	8.57	3.82	3.12	8.34	3.58	2.60	3.26	2.48	2.12
8	2.00	2.16	2.96	8.32	3.76	3.08	8.22	6.89	2.44	3.24	2.50	2.12
9	1.98	2.14	2.63	6.59	3.96	2.96	8.87	7.29	2.42	3.41	2.26	2.10
10	1.99	2.15	2.68	5.30	3.84	2.91	9.83	5.87	2.34	3.45	2.36	1.97
11	1.96	2.18	2.90	4.53	5.73	2.90	10.42	4.90	2.30	3.08	2.36	2.05
12	1.92	2.14	3.24	3.98	9.10	3.06	10.00	4.37	2.22	2.86	2.32	2.02
13	1.91	2.12	3.87	3.81	10.59	2.92	9.26	3.88	2.28	2.75	2.37	2.06
14	1.86	2.22	5.34	3.97	8.52	3.00	8.29	3.52	2.26	2.65	2.32	2.08
15	1.88	2.42	7.85	4.13	6.44	2.68	7.30	3.46	2.31	2.58	2.32	1.97
16	1.90	2.46	6.98	6.35	5.04	2.77	6.66	3.24	2.38	2.44	2.24	1.94
17	1.94	3.30	5.58	5.93	4.59	2.80	5.92	3.06	2.56	2.46	2.14	1.98
18	2.08	3.28	4.58	7.37	4.44	2.82	5.41	2.82	2.80	2.40	2.18	1.97
19	1.99	2.94	4.06	7.28	4.11	2.74	5.06	2.75	2.52	2.30	2.54	1.92
20	2.01	2.74	3.82	6.13	3.70	2.86	4.74	2.70	2.40	2.28	3.04	1.95
21	1.98	2.72	3.64	5.31	3.48	2.97	4.52	2.65	2.34	2.28	3.24	1.94
22	1.96	2.64	3.49	6.73	3.29	2.89	4.34	2.58	2.78	2.26	2.71	1.94
23	2.00	2.58	5.11	7.12	3.18	3.22	4.19	2.52	3.48	2.28	2.52	1.94
24	2.00	2.48	4.89	7.36	3.15	3.56	3.99	2.43	2.56	2.30	2.40	1.93
25	1.92	2.55	5.10	6.30	2.96	3.38	3.80	2.42	2.42	2.27	2.30	1.94
26	1.85	2.42	4.75	5.40	2.93	3.68	3.54	2.40	2.31	2.20	2.28	1.93
27	1.86	2.44	4.08	5.16	3.10	5.22	3.60	2.43	2.31	2.23	2.22	1.94
28	1.89	2.42	3.56	5.69	3.29	6.62	3.62	2.52	2.27	2.76	2.20	1.96
29	2.00	2.40	3.40	5.14	3.34	5.42	3.53	2.76	2.50	3.02	2.12	2.00
30	2.02	2.41	3.37	6.00	-------	4.92	3.40	2.76	2.72	2.87	2.12	1.98
31	2.13	-------	3.25	7.23	-------	7.17	-------	2.51	-------	2.53	2.17	-------

SUSQUEHANNA BASIN—STATION NO. 2

NORTH BRANCH OF SUSQUEHANNA RIVER AT TOWANDA

LOCATION.—Chain gage at Bridge Street Bridge at Towanda, Bradford County. Zero of gage is 693.4 ft. above mean sea level.

DRAINAGE AREA.—7,770 square miles.

RECORDS AVAILABLE.—December, 1892, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 165,000 second-feet Apr. 22 (gage height, 19.90 feet); minimum, 780 second-feet Sept. 8, 9 (gage height, 0.26 foot).

Maximum discharge during year ending Sept. 30, 1930, 65,100 second-feet Mar. 8 (gage height, 12.1 feet from graph based on gage readings); minimum, 642 second-feet Aug. 17 (gage height, 0.06 foot).

Maximum discharge during year ending Sept. 30, 1931, 67,500 second-feet Mar. 29 (gage height, 12.4 feet from graph based on gage readings); minimum, 538 second-feet Dec. 3 (gage height, 0.15 foot).

Maximum discharge during year ending Sept. 30, 1932, about 88,000 second-feet Apr. 1 (gage height, 14.76 feet); minimum, 707 second-feet Sept. 26, 27 (gage height, 0.17 foot).

1892-1932: Maximum gage height, 24.5 feet Mar. 2, 1902 (discharge not determined); minimum discharge, that of Dec. 3, 1930.

Maximum stage known, 25.0 feet Mar. 17, 1865 (discharge not determined).

REMARKS.—Records fair except those for periods of ice effect, which are poor.

Daily discharge, in second-feet, of North Branch of Susquehanna River at Towanda, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1,230	1,920	12,000	2,090	2,400	27,600	15,800	22,000	8,690	3,350	1,500	910
2	1,230	2,000	25,800	2,090	2,400	19,700	16,400	18,300	7,200	3,650	1,300	970
3	1,230	1,920	20,900	2,090	2,200	15,200	15,200	46,000	5,870	3,350	1,230	865
4	1,230	2,000	15,200	2,090	2,200	13,000	13,000	53,500	5,250	2,960	1,230	820
5	1,230	2,090	12,500	1,760	2,000	14,700	17,500	42,400	4,670	2,370	1,180	820
6	1,230	2,370	10,400	2,270	2,000	22,100	37,500	38,900	4,670	2,170	1,120	820
7	1,180	2,270	9,380	2,470	2,200	20,900	46,800	36,100	4,490	2,080	1,120	820
8	1,130	2,180	7,730	3,040	2,600	14,700	37,500	35,400	4,310	1,980	1,060	820
9	1,130	1,920	6,410	2,580	3,000	11,400	30,800	27,000	3,970	1,980	1,060	820
10	1,080	1,840	4,390	3,170	3,200	9,900	28,300	22,000	3,350	1,980	1,010	865
11	1,040	1,920	4,060	3,310	3,000	7,860	36,100	18,300	3,220	2,960	1,010	960
12	1,040	2,000	4,390	3,450	3,000	9,380	36,100	14,700	2,960	3,350	960	1,010
13	1,040	2,000	4,060	3,170	2,600	23,900	43,800	14,200	2,830	2,590	960	960
14	1,040	1,920	3,750	2,200	2,400	56,500	42,400	14,200	2,590	2,370	1,010	1,010
15	1,040	1,920	3,750	1,900	2,400	98,400	34,100	22,600	2,590	2,080	1,120	1,010
16	1,000	2,000	3,600	2,200	2,200	114,000	37,500	26,400	2,370	1,810	1,360	1,060
17	1,040	2,000	3,600	2,600	2,000	111,000	55,000	25,800	2,170	1,650	1,430	1,180
18	1,080	1,920	3,450	4,000	2,000	76,800	52,000	18,900	2,170	1,580	1,300	1,120
19	1,180	1,920	4,220	8,340	1,900	49,000	44,600	16,500	2,170	1,810	1,120	1,120
20	1,680	2,580	5,140	15,800	1,900	28,900	61,200	25,100	2,080	1,810	1,010	1,230
21	2,370	5,970	4,390	13,600	1,800	26,400	114,000	23,900	1,980	1,810	960	1,180
22	2,370	5,140	3,600	7,860	1,800	24,500	154,000	28,900	1,810	1,500	910	1,120
23	2,000	4,390	2,580	5,970	1,800	30,200	101,000	23,300	1,810	1,500	910	1,120
24	1,680	4,220	2,270	4,220	1,800	33,500	66,800	18,300	1,980	1,360	910	1,010
25	1,680	3,900	2,690	3,600	1,900	30,200	49,000	17,100	1,810	1,360	1,060	910
26	1,760	3,900	2,470	3,400	8,000	29,600	45,300	17,100	1,980	1,360	1,650	910
27	1,920	3,600	2,580	3,000	28,900	42,400	43,100	14,200	1,980	1,360	1,500	865
28	2,000	3,310	2,470	3,000	41,000	30,800	37,500	15,900	2,080	1,360	1,300	865
29	2,000	3,040	2,470	3,000	-------	23,300	33,500	19,500	2,370	1,430	1,180	865
30	1,920	3,170	2,270	2,800	-------	19,700	27,000	14,200	2,960	1,730	1,060	865
31	2,000	-------	2,090	2,600	-------	17,500	-------	10,800	-------	1,500	910	-------
1929-30												
1	825	2,410	3,430	8,280	3,900	18,000	10,600	5,110	8,640	3,270	917	744
2	1,130	2,960	3,050	9,000	4,150	18,000	9,360	5,110	7,200	3,430	825	784
3	11,600	2,670	2,800	23,800	4,400	18,000	11,900	4,770	6,150	4,260	825	871
4	24,800	2,960	2,700	29,800	4,300	13,700	10,600	5,800	5,110	3,590	871	871
5	13,600	3,920	2,700	19,000	4,000	12,400	9,360	6,150	4,600	2,960	871	1,340
6	9,760	4,090	2,800	12,400	3,750	11,000	9,000	5,450	4,090	2,670	871	1,270
7	6,500	3,920	3,110	12,400	3,500	12,400	24,800	4,600	3,920	2,410	825	1,080
8	5,450	3,750	3,750	16,100	3,300	41,000	38,500	5,110	3,590	3,270	784	1,020
9	4,600	3,270	4,770	27,800	3,250	55,800	31,100	4,770	3,590	2,670	744	917
10	3,920	2,960	6,150	31,800	3,250	39,200	24,200	4,430	4,260	2,960	744	825
11	3,750	2,960	5,450	24,200	3,300	31,800	19,000	3,920	9,760	3,920	670	784
12	3,430	2,960	4,260	17,500	3,350	34,400	17,000	3,430	9,000	3,430	670	744
13	3,110	2,810	3,590	23,400	3,400	30,400	15,600	3,270	6,500	2,540	707	784
14	2,670	2,960	5,040	44,800	3,270	29,200	15,600	3,270	5,110	2,410	670	744
15	2,540	3,270	12,200	45,500	2,960	23,600	13,700	4,770	4,260	2,960	670	917
16	2,540	7,580	12,800	37,100	2,850	18,500	11,500	8,280	3,430	2,960	707	1,270
17	2,280	9,000	10,600	24,300	2,750	16,500	10,600	7,920	3,110	2,410	670	1,920
18	2,280	14,500	16,200	18,000	2,900	23,200	10,600	6,500	11,500	2,040	670	1,920
19	2,280	31,800	31,800	11,900	4,200	39,200	10,600	5,800	19,900	1,920	670	1,340
20	2,410	24,800	36,400	9,000	6,600	33,700	10,600	10,200	14,600	1,700	707	1,200
21	2,540	17,000	31,100	7,400	10,600	25,400	9,360	11,900	10,200	1,510	670	1,080
22	2,280	12,400	19,600	6,600	18,700	19,000	8,280	9,000	8,280	1,420	670	969
23	3,340	10,200	12,800	6,000	27,200	14,600	7,920	7,560	6,150	1,340	707	917
24	7,920	8,640	10,600	5,400	31,700	12,800	7,560	6,500	5,110	1,270	744	825
25	5,110	7,200	9,000	5,000	28,500	12,400	7,560	11,900	4,430	1,340	744	917
26	4,260	6,850	9,360	4,700	54,400	20,100	7,200	11,000	4,090	1,270	825	917
27	3,590	6,150	9,760	4,350	40,600	21,300	6,850	9,360	5,110	1,270	825	969
28	3,270	6,150	9,760	4,200	23,600	16,500	6,850	8,280	5,800	1,200	825	969
29	2,960	5,800	9,760	4,100	-------	13,700	6,150	14,200	4,090	1,140	784	969
30	2,670	4,090	9,000	4,000	-------	11,900	5,450	14,200	3,590	1,020	784	969
31	2,540	-------	7,920	3,900	-------	11,900	-------	10,600	-------	969	744	-------

Daily discharge, in second-feet, of North Branch of Susquehanna River at Towanda, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	969	784	825	969	1,600	6,150	33,700	11,900	9,760	1,810	3,110	1,810
2	871	825	784	968	1,450	6,500	40,600	10,200	8,280	1,810	2,670	1,510
3	825	744	744	980	1,350	6,850	41,300	9,360	7,200	1,920	2,410	1,420
4	825	744	1,260	1,060	1,300	5,450	39,200	9,600	6,500	2,670	2,670	1,920
5	784	825	1,510	1,140	1,270	5,110	39,200	8,280	5,450	3,430	2,280	1,920
6	707	744	1,420	1,270	1,230	4,600	33,000	7,200	4,770	2,540	2,160	1,706
7	707	642	2,280	1,270	1,200	4,430	29,800	6,850	4,770	2,040	1,920	1,600
8	707	670	2,160	1,310	1,160	4,600	31,800	6,850	10,200	1,810	1,920	1,510
9	707	670	2,160	1,380	1,180	6,500	41,300	8,640	12,400	1,700	1,920	1,340
10	707	670	2,280	1,300	1,130	6,850	45,500	11,000	9,360	2,540	2,810	1,200
11	670	670	2,160	1,230	1,100	5,800	46,900	11,900	7,920	3,110	4,090	1,140
12	670	670	2,040	1,300	1,090	5,110	49,100	11,500	6,500	6,500	3,430	1,080
13	707	744	2,160	1,250	1,130	4,770	40,600	12,800	5,800	8,280	2,960	1,020
14	670	784	2,160	1,200	1,260	4,600	29,200	20,700	5,110	5,800	2,540	969
15	670	744	2,040	1,190	1,430	4,600	21,800	19,600	4,260	4,260	2,160	969
16	642	744	1,270	1,170	2,000	5,110	17,500	14,600	3,750	3,590	1,920	1,020
17	670	744	1,140	1,200	2,900	5,800	14,600	16,100	4,090	2,960	1,810	1,020
18	670	707	1,200	1,200	4,450	6,850	12,800	17,000	3,590	2,960	1,600	1,140
19	642	707	1,340	1,210	6,500	8,280	11,500	13,700	3,750	2,810	1,510	1,420
20	613	825	1,340	1,230	8,800	7,920	9,760	11,000	4,090	2,540	1,420	1,600
21	642	871	1,340	1,240	8,300	9,000	8,640	11,500	3,430	5,800	1,340	1,420
22	613	784	1,270	1,230	7,000	12,800	7,560	11,900	3,110	11,500	1,270	1,270
23	613	744	1,270	1,230	6,300	16,500	7,200	14,200	2,960	14,200	1,200	1,270
24	670	744	1,270	1,230	6,000	25,400	7,920	27,700	2,670	11,900	1,080	1,340
25	670	825	1,270	1,250	5,900	37,100	9,000	37,100	2,410	8,280	1,080	1,510
26	670	744	1,140	1,280	5,900	49,800	8,280	42,000	2,540	6,500	1,080	1,510
27	670	784	1,140	1,330	5,900	53,600	7,560	30,400	2,280	5,110	1,200	1,340
28	670	744	1,140	1,600	6,000	54,400	8,640	18,500	2,040	4,430	1,080	1,270
29	707	613	1,140	1,700	-------	62,700	9,000	13,700	2,040	3,590	1,200	1,200
30	707	707	1,080	1,810	-------	60,400	11,000	11,500	2,040	3,270	1,276	1,340
31	744	-------	969	1,750	-------	46,200	-------	10,206	-------	2,960	1,920	-------
1931–32												
1	1,270	1,080	2,280	6,500	19,600	7,560	76,800	7,560	3,750	3,590	2,540	1,270
2	1,270	1,200	3,270	5,800	14,200	7,200	75,100	8,280	3,430	3,270	2,160	1,340
3	1,140	1,340	3,750	6,150	11,500	6,500	77,400	9,360	3,270	6,500	1,920	1,420
4	1,080	1,510	3,920	6,850	12,400	6,500	70,000	8,640	3,110	8,640	1,810	1,340
5	1,080	1,340	3,590	6,150	16,500	7,560	52,500	7,560	2,810	7,200	1,600	1,510
6	1,020	1,340	6,150	6,500	9,760	7,560	41,300	6,850	3,430	6,850	2,160	1,420
7	969	1,270	6,500	25,400	9,760	7,560	36,400	7,200	4,260	6,150	2,540	1,270
8	917	1,270	5,450	40,600	9,000	6,500	32,400	22,000	3,110	5,450	2,280	1,200
9	871	1,270	4,090	27,200	9,760	4,770	34,400	51,400	2,670	5,800	2,280	1,140
10	917	1,270	3,590	18,500	10,200	5,110	42,700	38,000	2,540	6,500	1,920	1,080
11	917	1,270	3,750	14,200	26,300	5,800	52,800	36,800	2,160	5,800	1,810	969
12	871	1,340	5,110	11,500	49,100	6,150	55,100	39,600	2,160	4,770	1,810	917
13	825	1,340	7,920	9,760	49,100	5,800	49,100	24,200	2,160	3,920	1,920	871
14	825	1,270	10,600	10,200	40,600	6,150	37,800	17,500	2,280	3,430	1,920	917
15	871	1,420	24,800	10,600	26,600	5,800	30,400	16,500	2,160	3,270	1,920	917
16	871	2,410	26,000	20,100	17,500	5,450	25,400	14,200	2,280	2,960	1,700	917
17	825	3,920	19,000	22,400	14,600	5,450	20,700	10,600	2,670	2,540	1,600	825
18	871	6,150	13,300	20,100	12,800	5,450	18,000	9,360	2,670	2,410	1,510	825
19	917	5,450	10,200	27,800	11,500	5,110	15,600	7,920	3,110	2,280	1,420	784
20	917	4,090	9,360	21,800	9,760	6,150	14,200	7,200	2,540	2,040	2,410	825
21	969	3,590	8,280	17,000	8,640	7,200	12,400	6,500	2,410	1,810	4,090	784
22	917	3,590	8,280	21,800	7,560	6,850	11,900	5,800	2,040	1,920	4,090	825
23	917	3,270	10,500	28,500	7,560	8,640	11,500	5,450	3,110	1,920	3,430	825
24	917	3,110	17,000	31,100	6,500	10,600	10,600	4,770	3,430	1,810	2,810	784
25	917	2,810	14,200	26,000	6,150	11,000	9,760	4,430	2,540	1,810	2,040	744
26	871	2,540	15,100	19,000	6,150	12,800	9,000	4,260	2,280	1,700	1,700	744
27	784	2,540	11,500	16,100	6,500	23,600	9,000	4,260	2,040	1,510	1,600	744
28	784	2,540	9,360	17,500	7,560	30,400	9,000	4,770	2,040	1,920	1,510	784
29	871	2,280	8,280	16,500	7,560	23,000	8,640	4,430	1,920	3,110	1,420	871
30	1,020	2,410	7,560	16,500	-------	20,100	8,280	4,600	2,280	3,750	1,270	825
31	1,140	-------	6,850	26,000	-------	38,900	-------	4,430	-------	3,110	1,200	-------

Note.—Discharge estimated for periods of ice effect, Jan. 14-18, Jan. 25 to Feb. 26, Dec. 26, 1929, Jan. 21 to Feb. 13, 16-20, 1930, Jan. 1-4, 8-28, Jan. 31 to Feb. 28, 1931.

Monthly discharge, in second-feet, of North Branch of Susquehanna River at Towanda, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	2,370	1,000	1,440	0.185	0.21
November	5,970	1,840	2,710	.349	.39
December	25,800	2,090	6,260	.806	.93
January	15,800	1,760	3,990	.514	.59
February	41,000	1,800	4,810	.619	.64
March	114,000	7,860	34,000	4.38	5.05
April	154,000	13,000	45,800	5.89	6.57
May	53,500	10,800	23,900	3.08	3.55
June	8,690	1,810	3,280	.422	.47
July	3,650	1,300	2,070	.266	.31
August	1,650	910	1,140	.147	.17
September	1,230	820	961	.124	.14
The year	154,000	820	10,900	1.40	19.02
1929–30					
October	24,800	825	4,840	.623	.72
November	31,800	2,410	7,330	.943	1.05
December	36,400	2,700	10,100	1.30	1.50
January	45,500	3,900	16,200	2.08	2.40
February	54,400	2,750	11,000	1.42	1.48
March	55,800	11,000	22,600	2.91	3.36
April	38,500	5,450	12,900	1.66	1.85
May	14,200	3,270	7,200	.927	1.07
June	19,900	3,110	6,510	.838	.94
July	4,260	969	2,310	.297	.34
August	917	670	755	.097	.11
September	1,920	744	1,030	.133	.15
The year	55,800	670	8,560	1.10	14.97
1930–31					
October	969	613	704	.091	.10
November	871	613	741	.095	.11
December	2,280	744	1,460	.188	.22
January	1,810	968	1,270	.163	.19
February	8,800	1,090	3,380	.435	.45
March	62,700	4,430	17,500	2.25	2.59
April	49,100	7,200	23,800	3.06	3.41
May	42,000	6,850	15,100	1.94	2.24
June	12,400	2,040	5,100	.656	.73
July	14,200	1,700	4,600	.592	.68
August	4,090	1,080	1,970	.254	.29
September	1,920	969	1,360	.175	.20
The year	62,700	613	6,430	.828	11.21
1931–32					
October	1,270	784	947	.122	.14
November	6,150	1,080	2,340	.301	.34
December	26,000	2,280	9,340	1.20	1.38
January	40,600	5,800	17,900	2.30	2.65
February	49,100	6,150	15,300	1.97	2.12
March	38,900	4,770	10,200	1.31	1.51
April	77,400	8,280	31,900	4.11	4.59
May	51,400	4,260	13,000	1.67	1.92
June	4,260	1,920	2,690	.346	.39
July	8,640	1,510	3,800	.489	.56
August	4,090	1,200	2,080	.268	.31
September	1,510	744	990	.127	.14
The year	77,400	744	9,180	1.18	16.05

NORTH BRANCH OF SUSQUEHANNA RIVER AT WILKES-BARRE

LOCATION.—Water-stage recorder at Market Street Bridge at Wilkes-Barre, Luzerne County. Zero of gage is 511.03 feet above mean sea level. Chain gage at same datum on North Street Bridge 2,100 feet upstream used from Jan. 17, 1928, to Oct. 30, 1929.

DRAINAGE AREA.—9,960 square miles.

RECORDS AVAILABLE.—November, 1890, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 159,000 second-feet Apr. 22 (gage height, 26.44 feet); minimum, 1,000 second-feet Sept. 7 (gage height, 1.22 feet).

Maximum discharge during year ending Sept. 30, 1930, 67,600 second-feet Mar. 9 (gage height, 16.7 feet); minimum, 970 second-feet Aug. 20-23 (gage height, 1.00 foot).

Maximum discharge during year ending Sept. 30, 1931, 74,700 second-feet Mar. 30 (gage height, 17.64 feet); minimum, 970 second-feet Dec. 3 (gage height, 0.95 foot).

(Above gage heights are referred to North Street gage).

Maximum discharge during year ending Sept. 30, 1932, 107,000 second-feet Apr. 2 (gage height, 20.54 feet); minimum, 932 second-feet Sept. 26 (gage height, 0.89 foot).

1890-1932: Maximum discharge (estimated), 221,000 second-feet Mar. 2, 1902 (gage height, 31.4 feet); minimum, 820 second-feet Sept. 12, 16, 17, 20, 1913.

Maximum stage known, 33.1 feet Mar. 18, 1865 (discharge not determined).

REMARKS.—Records fair except those for periods of ice effect, which are poor.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	2,000	2,760	5,940	2,930	3,110	38,400	20,600	29,800	15,000	3,500	2,150	1,250
2	2,000	2,760	20,600	2,800	3,000	27,800	19,200	28,300	12,000	4,000	1,850	1,160
3	2,000	2,760	26,800	2,760	2,800	21,100	19,700	45,100	11,000	4,500	1,780	1,120
4	2,000	2,760	20,600	2,400	2,800	18,300	17,400	66,900	9,500	4,000	1,710	1,120
5	1,850	2,760	15,300	2,150	2,600	19,200	17,400	52,000	8,000	3,500	1,640	1,080
6	1,850	2,600	12,400	2,600	2,600	27,300	28,300	45,100	7,240	3,200	1,580	1,040
7	1,850	3,110	11,300	3,200	3,000	28,300	52,000	43,600	7,000	2,800	1,520	1,000
8	1,780	3,300	10,300	3,800	3,200	23,400	45,100	41,000	6,460	2,800	1,460	1,080
9	1,780	3,110	8,760	5,180	3,800	17,000	39,000	36,400	5,940	2,800	1,460	1,300
10	1,780	2,930	7,240	4,720	4,200	14,000	33,500	29,800	5,680	2,800	1,400	1,160
11	1,710	2,760	6,730	4,720	4,400	12,800	37,400	24,400	5,180	2,800	1,350	1,120
12	1,640	2,600	5,420	4,500	4,200	12,100	42,000	20,600	4,720	3,300	1,460	1,040
13	1,640	2,930	5,000	4,200	3,800	22,500	47,800	19,200	4,300	4,200	1,300	1,120
14	1,580	2,760	4,800	3,600	3,600	48,800	48,300	18,300	4,100	3,500	1,300	1,580
15	1,460	2,760	4,800	3,000	3,400	92,700	43,600	20,600	3,900	2,930	1,580	1,640
16	1,400	2,600	4,600	2,760	3,200	117,000	42,000	25,400	3,700	2,760	1,640	1,520
17	1,350	2,600	4,400	2,600	3,000	125,000	58,200	27,800	3,500	2,600	1,520	1,580
18	1,400	2,600	4,600	3,110	2,800	104,000	63,800	25,800	3,300	2,300	1,580	1,460
19	1,520	2,760	5,000	4,300	2,600	66,900	55,000	22,500	3,110	2,450	1,850	1,580
20	1,520	2,760	5,680	11,000	2,600	44,100	61,600	25,800	3,300	2,450	1,710	1,580
21	2,000	2,930	6,730	23,400	2,600	33,500	98,100	32,000	3,300	2,450	1,520	1,460
22	2,930	5,680	5,680	14,000	2,600	29,800	148,000	33,000	3,110	2,450	1,350	1,460
23	3,300	6,730	4,720	9,940	2,760	28,300	141,000	33,500	2,930	2,300	1,300	1,460
24	3,110	6,200	3,700	7,240	2,930	29,300	94,500	27,300	2,760	2,150	1,250	1,400
25	2,930	5,680	3,500	5,680	3,110	36,400	64,600	24,400	2,930	1,850	1,200	1,350
26	2,600	5,180	3,300	4,720	5,180	34,500	57,500	22,900	3,110	1,780	1,120	1,300
27	2,600	4,720	3,900	3,700	34,900	37,900	52,600	21,100	3,110	1,780	1,120	1,200
28	2,600	4,720	4,100	3,300	48,800	39,500	44,600	18,300	3,110	1,710	1,850	1,120
29	2,930	4,500	3,700	3,200	-------	31,400	39,000	19,700	3,110	1,710	1,850	1,120
30	2,930	4,300	3,300	3,200	-------	26,300	34,000	21,500	3,300	1,640	1,580	1,120
31	2,760	-------	2,930	3,200	-------	23,400	-------	19,000	-------	1,850	1,350	-------

Daily discharge, in second-feet, of North Branch of Susquehanna River at Wilkes-Barre, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1929–30												
1	1,140	3,200	5,870	11,400	6,600	29,800	16,000	7,480	14,800	5,130	1,410	1,140
2	5,140	3,000	3,200	11,800	6,640	26,200	14,800	7,190	11,400	5,620	1,410	1,080
3	16,400	3,400	3,500	17,200	7,190	26,600	13,600	7,190	9,350	6,120	1,410	1,080
4	21,200	4,010	3,800	33,500	6,910	24,000	14,800	6,910	8,080	5,870	1,300	1,080
5	28,400	4,220	3,600	31,200	6,910	18,600	14,000	7,190	6,640	5,130	1,210	1,080
6	21,300	4,890	3,600	23,000	6,640	17,600	12,200	7,780	5,870	4,660	1,140	1,140
7	11,100	5,130	4,300	18,100	5,870	16,400	21,600	6,910	5,370	4,010	1,140	1,300
8	8,080	4,890	5,130	18,100	4,890	20,600	44,500	6,120	4,890	3,600	1,080	1,660
9	6,640	4,660	5,620	25,300	4,660	63,800	44,000	6,120	4,890	3,600	1,080	1,410
10	5,620	4,220	6,380	36,000	4,500	53,800	35,500	6,120	5,130	4,440	1,080	1,300
11	4,890	4,010	7,480	35,000	4,400	43,000	29,800	5,620	3,660	5,130	1,080	1,210
12	4,660	3,800	5,870	27,600	4,440	41,000	25,800	5,130	13,200	4,890	1,080	1,140
13	4,010	3,600	5,130	24,400	4,660	41,000	22,600	4,660	11,800	4,220	1,080	1,140
14	3,800	3,600	7,480	41,300	5,130	36,000	21,700	4,440	8,700	3,800	1,020	1,140
15	3,600	4,010	11,500	52,000	5,130	36,000	21,200	4,890	6,910	4,660	1,020	1,210
16	3,400	5,370	19,000	47,600	4,220	28,400	19,000	7,780	5,620	4,220	1,020	3,210
17	3,200	9,700	17,600	39,000	3,800	24,400	17,200	11,800	4,890	4,010	1,020	8,740
18	3,000	13,600	20,400	29,400	3,200	23,000	18,100	11,100	4,890	3,600	1,020	4,220
19	3,000	33,200	34,800	22,200	3,800	37,500	17,600	8,700	18,400	3,000	1,020	3,600
20	3,000	38,000	45,000	17,600	4,890	44,000	16,400	9,020	25,300	2,620	970	2,810
21	3,200	28,900	43,000	14,000	6,640	36,500	15,600	14,000	18,100	2,440	970	2,270
22	3,000	22,200	32,000	13,200	12,500	29,800	13,600	14,800	13,600	2,270	970	1,950
23	3,200	16,800	24,400	12,000	27,600	23,500	12,500	11,800	10,400	2,270	970	1,660
24	5,400	13,900	19,000	10,700	29,800	19,000	11,400	10,000	8,080	2,110	1,140	1,530
25	8,700	11,400	15,200	9,700	31,600	16,800	16,800	14,300	6,640	2,110	1,080	1,410
26	6,380	9,700	13,200	9,000	43,500	19,000	10,400	19,900	5,870	1,950	1,080	1,530
27	5,370	9,020	13,200	8,200	60,300	30,200	9,700	16,800	6,380	1,800	1,080	2,270
28	4,440	8,390	14,000	7,480	41,300	27,600	9,350	14,000	8,390	1,660	1,080	1,950
29	4,220	7,780	13,600	7,200	-------	23,000	9,020	12,800	7,780	1,660	1,020	2,110
30	3,800	7,780	13,600	6,900	-------	19,000	8,080	16,400	6,120	1,660	1,140	1,660
31	3,400	-------	12,500	6,700	-------	16,800	-------	17,600	-------	1,530	1,140	-------
1930–31												
1	1,530	1,080	1,210	1,200	1,300	7,190	47,100	15,600	16,000	2,810	3,800	1,950
2	1,410	1,080	1,140	1,180	1,300	7,480	49,300	15,600	14,000	2,620	3,800	2,440
3	1,410	1,080	1,040	1,180	1,300	7,190	50,400	13,200	11,800	2,620	3,800	2,440
4	1,300	1,080	1,260	1,250	1,290	7,480	48,200	11,800	9,700	3,400	3,400	2,270
5	1,300	1,140	1,410	1,410	1,300	7,780	47,100	11,400	8,390	3,400	3,400	1,950
6	1,210	1,140	1,800	1,950	1,530	6,910	44,000	10,400	7,190	4,660	3,200	2,620
7	1,140	1,080	2,110	1,660	1,410	6,380	39,500	9,020	6,640	4,010	3,000	2,440
8	1,140	1,080	2,620	1,410	1,530	6,380	38,500	9,700	8,920	4,660	2,810	2,270
9	1,080	1,020	3,000	1,370	1,660	7,480	44,000	14,000	16,800	4,010	2,620	2,110
10	1,080	1,020	3,000	1,370	1,410	9,700	52,000	14,800	15,600	8,280	2,620	1,950
11	1,080	1,020	3,000	1,390	1,300	9,700	52,000	16,800	12,500	14,400	3,200	1,660
12	1,080	1,020	3,000	1,420	1,210	8,390	53,200	20,400	10,400	10,800	4,660	1,530
13	1,080	1,080	2,810	1,390	1,410	7,190	49,800	19,900	8,700	9,700	4,220	1,410
14	1,020	1,080	2,620	1,340	1,800	6,640	41,000	26,200	7,480	11,100	3,800	1,410
15	1,020	1,080	2,620	1,300	1,530	6,380	32,500	30,200	6,380	8,390	3,400	1,410
16	1,020	1,080	2,440	1,290	1,530	7,190	26,600	27,600	6,120	6,380	3,000	1,530
17	1,020	1,080	1,950	1,300	1,950	7,780	22,600	24,400	6,380	5,370	2,620	1,530
18	1,140	1,080	1,660	1,320	2,620	9,020	19,400	25,300	5,870	4,660	2,440	1,410
19	1,080	1,140	1,950	1,410	4,010	11,100	16,400	23,500	5,130	4,890	2,270	1,530
20	1,020	1,080	2,110	1,660	6,120	12,200	14,800	19,400	4,890	4,440	2,110	1,660
21	1,020	1,080	1,950	1,530	8,390	11,800	13,200	19,900	5,130	4,220	1,950	1,950
22	1,020	1,140	1,800	1,300	9,020	14,800	11,400	24,400	4,660	10,500	1,800	2,110
23	970	1,140	1,660	1,210	8,390	19,400	11,100	24,000	4,220	18,100	1,800	1,800
24	970	1,080	1,560	1,220	7,480	26,600	10,800	28,400	4,010	17,200	1,660	1,660
25	1,020	1,140	1,500	1,230	6,910	37,000	11,100	43,500	3,800	14,000	1,530	1,660
26	970	1,140	1,490	1,310	6,640	49,300	12,200	51,500	3,600	10,400	1,530	1,660
27	970	1,140	1,520	1,410	7,190	56,200	11,800	48,800	3,400	7,780	1,530	1,800
28	1,020	1,140	1,520	1,530	6,910	57,600	11,100	34,500	3,200	6,380	1,800	1,800
29	1,020	1,080	1,480	1,660	-------	66,100	11,800	25,300	3,000	5,870	1,950	1,660
30	1,020	1,040	1,400	1,410	-------	72,100	12,200	19,900	2,810	4,890	1,660	1,530
31	1,080	-------	1,300	1,360	-------	59,600	-------	18,100	-------	4,220	1,660	-------

Daily discharge, in second-feet, of North Branch of Susquehanna River at Wilkes-Barre, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1,540	1,330	2,620	7,570	29,100	10,000	88,700	10,000	5,600	2,620	3,500	1,380
2	1,590	1,330	2,540	7,270	22,600	9,660	104,000	10,400	4,970	3,820	2,900	1,330
3	1,590	1,380	2,870	6,550	17,700	9,330	97,200	11,000	4,610	4,380	2,540	1,280
4	1,540	1,540	3,920	6,830	16,400	9,330	96,400	11,800	4,490	6,470	2,290	1,330
5	1,480	1,710	3,920	7,420	16,000	9,330	76,000	10,700	4,260	9,330	2,060	1,330
6	1,430	1,780	3,600	7,270	15,200	10,400	59,100	9,330	3,810	8,350	1,980	1,540
7	1,380	1,590	5,620	12,500	14,000	11,000	50,300	8,670	3,810	7,720	1,980	1,540
8	1,330	1,590	6,830	37,800	12,800	10,000	43,900	11,300	4,610	7,720	2,450	1,380
9	1,280	1,540	5,470	38,500	12,800	8,670	40,900	43,800	4,030	7,420	2,540	1,280
10	1,190	1,540	5,860	28,600	13,200	7,570	46,400	54,900	3,390	6,830	2,290	1,190
11	1,150	1,540	4,140	21,300	33,600	7,270	56,300	43,900	3,090	7,120	2,290	1,110
12	1,150	1,540	4,260	17,200	53,600	8,030	63,300	46,400	2,990	6,410	1,980	1,110
13	1,190	1,590	5,470	14,000	59,100	8,350	60,500	43,000	3,190	5,220	1,910	1,080
14	1,150	1,590	9,010	12,800	54,200	8,030	50,300	29,600	3,090	4,380	1,980	1,040
15	1,150	1,590	14,000	13,200	42,700	7,420	42,700	22,600	2,990	3,920	1,910	1,010
16	1,150	1,650	27,600	14,800	30,200	6,980	38,500	21,300	3,190	3,500	1,980	1,010
17	1,150	2,290	25,600	25,000	27,200	6,690	30,200	17,700	4,260	3,290	1,840	1,010
18	1,110	2,820	19,500	25,100	19,000	7,120	26,100	14,400	5,220	2,900	1,840	1,010
19	1,080	5,310	14,800	27,100	16,800	7,270	27,200	12,100	4,380	2,620	1,840	982
20	1,110	5,340	12,100	29,600	15,200	8,030	20,000	10,000	4,380	2,540	1,840	957
21	1,150	4,610	10,400	24,100	12,400	10,000	17,700	9,000	3,920	2,370	1,710	957
22	1,190	4,030	9,330	27,200	11,400	11,000	16,400	8,030	3,390	2,290	3,250	932
23	1,190	3,700	9,000	29,100	10,000	13,000	15,200	7,270	3,700	2,620	3,920	957
24	1,190	3,390	13,000	37,300	9,000	15,600	14,000	6,550	3,390	2,540	3,290	957
25	1,190	3,290	17,700	37,300	8,350	16,800	12,800	6,000	4,490	2,290	2,620	957
26	1,150	3,090	16,400	29,600	8,030	17,700	12,100	5,600	3,600	2,130	2,290	932
27	1,150	2,800	16,000	24,100	7,720	26,100	11,400	5,730	3,190	2,130	1,980	957
28	1,110	2,800	12,800	21,800	8,670	38,500	11,000	6,270	2,900	2,060	1,780	982
29	1,190	2,710	10,700	27,200	9,330	36,800	11,000	6,410	2,620	2,060	1,650	932
30	1,190	2,620	9,000	27,200	-------	31,200	10,700	6,000	2,540	2,490	1,540	982
31	1,240	-------	8,350	26,600	-------	40,100	-------	5,600	-------	3,500	1,480	-------

Note.—Discharge estimated for periods of ice effect, Dec. 13-19, 1928, Jan. 2. 4, 6-8. 13-15, Jan. 29 to Feb. 22, Dec. 3-7, 1929, Jan. 23-31, Feb. 1, 10, 11, Dec. 24-31, 1930, Jan. 1-4, 9-18, 24-26, Jan. 31 to Feb. 4, Feb. 11, 1931; and for periods of missing or poor gage-height record, May 31 to June 5, July 2-14. 1929. Recorder not operating and chain gage readings used for Oct. 14-21, 1930, Jan. 18 to Feb. 18, 1931.

Monthly discharge, in second feet, of North Branch of Susquehanna River at Wilkes-Barre, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	3,330	1,350	2,090	0.210	0.24
November	6,730	2,600	3,550	.356	.40
December	26,860	2,930	7,610	.764	.88
January	23,400	2,150	5,090	.511	.59
February	48,800	2,600	5,990	.601	.63
March	125,000	12,100	39,700	3.99	4.60
April	148,000	17,400	52,200	5.24	5.85
May	66,900	18,300	29,700	2.98	3.44
June	15,000	2,760	5,260	.528	.59
July	4,500	1,640	2,740	.275	.32
August	2,150	1,120	1,530	.154	.18
September	1,640	1,000	1,280	.129	.14
The year	148,000	1,000	13,100	1.32	17.86
1929-30					
October	28,400	1,140	6,860	.689	.79
November	38,000	3,000	9,860	.990	1.10
December	45,000	3,200	14,000	1.41	1.63
January	52,000	6,700	21,500	2.16	2.49
February	60,300	3,200	12,800	1.29	1.34
March	63,800	16,400	29,600	2.97	3.42
April	44,500	8,080	18,400	1.85	2.06
May	19,900	4,440	9,820	.986	1.14
June	25,300	4,890	9,200	.924	1.03
July	6,120	1,530	3,540	.355	.41
August	1,410	970	1,110	.111	.13
September	8,740	1,080	1,940	.198	.22
The year	63,800	970	11,600	1.16	15.76
1930-31					
October	1,530	970	1,100	.110	.13
November	1,140	1,020	1,090	.109	.12
December	3,000	1,040	1,930	.194	.22
January	1,950	1,180	1,390	.140	.16
February	9,020	1,210	3,520	.353	.37
March	72,100	6,380	20,300	2.04	2.35
April	53,200	10,800	30,200	3.03	3.38
May	51,500	9,020	22,500	2.26	2.61
June	16,800	2,810	7,560	.759	.85
July	18,100	2,620	7,230	.726	.84
August	4,660	1,530	2,680	.269	.31
September	2,620	1,410	1,840	.185	.21
The year	72,100	970	8,470	.850	11.55
1931-32					
October	1,590	1,080	1,250	.126	.15
November	5,340	1,330	2,450	.246	.27
December	27,600	2,540	10,100	1.01	1.16
January	38,500	6,550	21,700	2.18	2.51
February	59,100	7,720	20,900	2.10	2.26
March	40,100	6,690	13,800	1.39	1.60
April	104,000	10,700	41,700	4.19	4.68
May	54,900	5,600	16,600	1.67	1.92
June	5,600	2,540	3,800	.382	.43
July	9,330	2,060	4,290	.431	.50
August	3,920	1,480	2,240	.225	.26
September	1,540	932	1,120	.112	.12
The year	104,000	932	11,600	1.16	15.86

NORTH BRANCH OF SUSQUEHANNA RIVER AT DANVILLE

LOCATION.—Chain gage at highway bridge at Danville, Montour County. Zero of gage is 430.47 feet above mean sea level.

DRAINAGE AREA.—11,200 square miles.

RECORDS AVAILABLE.—March, 1899, to December, 1903; March, 1905, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 163,000 second-feet Apr. 23 (gage height, 20.35 feet); minimum, 1,400 second-feet Sept. 6, 7, 13 (gage height, 2.00 feet).

Maximum discharge during year ending Sept. 30, 1930, 78,700 second-feet Mar. 9 (gage height, 13.5 feet from graph based on gage readings); minimum, 1,050 second-feet Aug. 13, 19-21, 23 (gage height, 1.9 feet).

Maximum discharge during year ending Sept. 30, 1931, 88,500 second-feet Mar. 30 (gage height, 14.35 feet); minimum, 920 second-feet Oct. 25 (gage height, 1.8 feet).

Maximum discharge during year ending Sept. 30, 1932, 119,000 second-feet Apr. 2 (gage height, 17.0 feet); minimum, 920 second-feet Sept. 22, 23 (gage height, 1.82 feet).

1899-1903, 1905-1932: Maximum discharge (estimated), 305,000 second-feet Mar. 3, 1902 (gage height, 26.07 feet); minimum, 830 second-feet Sept. 23, 25, 1900 (gage height, 1.6 feet).

REMARKS.—Records good except those for periods of ice effect, which are poor. Discharge not computed Oct. 1, 1931, to July 20, 1932, owing to questionable gage-height record.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	2,800	3,220	4,640	3,520	3,600	51,000	21,800	34,600	16,700	4,360	2,150	1,810
2	2,660	3,220	7,600	3,370	3,400	33,900	20,600	31,000	13,600	4,640	2,270	1,810
3	2,530	3,220	24,200	3,370	3,400	27,500	18,900	51,800	11,600	5,000	2,270	1,600
4	2,400	3,220	24,200	3,000	3,400	21,800	18,900	86,300	10,200	5,000	2,270	1,500
5	2,400	3,370	19,400	2,800	3,200	22,400	17,800	73,500	9,250	4,640	2,270	1,500
6	2,400	3,220	15,600	2,800	3,000	31,700	24,900	56,300	8,320	4,640	2,030	1,400
7	2,400	3,220	12,600	3,400	3,200	34,600	45,800	51,000	7,870	3,980	2,030	1,400
8	2,400	3,520	11,200	5,000	3,600	30,300	54,500	47,500	7,870	3,820	2,030	1,500
9	2,400	3,520	9,730	5,500	5,500	24,900	45,800	45,000	7,000	3,370	1,810	2,270
10	2,150	3,520	8,320	5,500	6,000	17,200	39,200	36,100	6,580	3,220	1,810	1,700
11	2,150	3,220	7,000	5,500	6,000	16,100	36,900	28,900	6,170	3,080	1,810	1,600
12	2,150	3,220	6,580	5,000	6,000	14,100	45,800	24,900	6,170	3,080	1,810	1,600
13	2,150	3,220	5,380	4,600	5,500	16,700	51,000	23,000	5,380	3,080	2,270	1,400
14	2,150	3,220	5,380	4,000	4,600	36,100	56,300	20,000	4,640	4,640	2,030	2,030
15	2,030	3,080	5,380	3,400	4,000	84,100	52,700	20,000	4,640	3,820	2,660	2,270
16	1,920	3,080	5,380	3,000	3,600	118,000	47,500	23,600	4,300	3,370	2,270	2,270
17	1,920	3,080	5,380	3,000	3,400	131,000	64,500	30,300	4,300	3,080	2,150	2,270
18	1,920	3,080	5,000	2,800	3,200	123,000	80,800	28,900	3,980	2,800	2,030	2,270
19	2,030	3,080	5,380	3,400	3,000	86,300	71,500	26,200	3,980	3,370	1,920	2,030
20	2,150	3,370	5,380	6,000	3,000	57,200	64,500	24,900	4,300	3,220	2,030	2,030
21	2,030	3,370	6,170	22,000	3,000	40,800	84,100	30,300	4,640	3,080	2,030	2,030
22	2,150	3,670	7,000	19,000	3,000	33,200	131,000	33,900	3,980	3,080	2,030	1,920
23	2,940	6,580	6,170	14,100	3,000	30,300	158,000	37,700	3,670	2,800	2,030	1,810
24	3,520	7,000	5,000	10,700	3,000	33,900	121,000	32,500	3,670	2,800	1,810	1,810
25	3,820	6,170	3,980	7,870	3,000	37,700	81,900	26,200	3,670	2,530	1,600	1,810
26	3,520	5,380	3,670	6,170	4,000	36,900	68,400	24,200	3,980	2,270	1,600	1,810
27	3,220	5,000	3,980	4,400	25,500	34,600	64,500	23,600	3,820	2,270	1,600	1,810
28	2,940	5,000	4,300	3,660	48,400	38,400	53,600	20,600	3,980	2,270	1,500	1,600
29	2,940	4,640	3,980	3,600	-------	36,100	45,800	19,400	4,300	2,270	2,030	1,600
30	3,220	4,640	3,980	3,600	-------	28,200	39,200	23,600	4,300	2,030	2,270	1,600
31	3,370	-------	3,670	3,600	-------	24,900	-------	20,600	-------	2,150	2,030	-------

Daily discharge, in second-feet, of North Branch of Susquehanna River at Danville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1,500	3,970	7,430	12,600	7,000	37,700	17,200	8,780	16,700	6,580	1,850	1,310
2	4,210	3,910	6,580	12,100	6,580	28,900	16,100	8,780	13,600	7,870	1,850	1,400
3	16,700	3,750	3,970	13,600	6,580	26,900	14,600	8,780	11,200	7,000	1,610	1,400
4	20,000	4,470	4,140	26,300	7,870	26,200	14,600	7,870	9,730	6,580	1,610	1,220
5	30,300	5,000	4,300	39,200	7,870	22,400	15,100	7,870	7,870	6,580	1,500	1,220
6	22,400	5,000	4,640	29,600	7,870	19,400	14,600	8,780	7,000	5,380	1,400	1,220
7	15,100	5,580	4,640	21,200	7,000	17,200	21,900	8,320	6,170	4,820	1,400	1,310
8	11,200	5,580	5,000	18,300	5,380	18,900	45,000	7,870	5,770	4,470	1,400	1,500
9	8,320	5,380	5,770	21,800	5,190	58,700	55,400	7,000	5,770	3,970	1,400	1,850
10	7,000	5,000	6,580	33,200	5,000	70,400	45,000	7,000	6,170	5,380	1,400	1,610
11	6,170	4,640	7,870	40,800	4,820	53,600	36,100	6,580	7,000	5,770	1,220	1,610
12	5,380	4,640	8,780	33,200	5,000	45,000	30,300	6,170	10,700	5,770	1,220	1,400
13	4,820	4,300	7,900	26,900	5,000	47,500	26,200	5,770	13,600	5,580	1,050	1,400
14	4,300	4,300	6,170	33,400	6,170	42,500	25,500	5,380	11,200	5,190	1,140	1,310
15	4,300	4,640	11,200	58,100	6,170	37,700	24,200	6,580	8,780	4,640	1,140	1,610
16	3,970	5,380	18,900	58,100	6,170	33,900	23,000	8,780	7,000	5,380	1,400	1,500
17	3,330	7,000	21,800	48,400	4,470	26,900	23,000	11,600	6,170	5,000	1,220	4,450
18	3,490	15,100	19,400	36,900	4,470	23,600	23,600	12,600	9,730	4,640	1,220	7,380
19	3,330	29,800	28,000	26,900	4,300	28,200	23,000	11,200	9,730	4,140	1,050	4,140
20	3,180	45,800	45,800	21,200	5,380	46,600	20,000	9,730	26,400	3,750	1,140	3,750
21	3,180	37,700	51,000	16,700	7,870	44,100	18,900	10,700	23,600	3,330	1,050	3,020
22	3,490	28,200	44,100	14,100	10,700	34,600	17,800	16,700	17,200	3,020	1,140	2,410
23	4,140	21,200	31,700	12,600	25,500	27,500	15,600	14,600	13,600	3,020	1,050	1,850
24	4,140	16,700	23,600	11,600	31,700	21,800	13,600	11,600	10,700	2,860	1,220	1,850
25	4,300	13,600	18,900	10,700	33,200	18,900	12,600	12,600	8,780	2,710	1,500	1,730
26	8,320	11,600	14,600	9,250	39,200	20,000	12,100	20,000	7,000	2,410	1,400	1,610
27	6,170	10,700	12,600	8,780	71,500	26,200	11,600	20,000	7,000	2,120	1,400	1,610
28	5,380	9,250	14,600	9,...0	58,600	33,200	10,700	16,700	7,870	2,410	1,220	1,730
29	4,820	8,780	14,100	8,780	-------	27,500	10,200	14,600	9,250	2,120	1,220	2,120
30	4,470	7,870	14,100	7,870	-------	21,800	9,730	14,600	8,320	2,120	1,220	2,280
31	4,300	-------	13,600	7,430	-------	18,900	-------	20,000	-------	1,980	1,220	-------
1930-31												
1	1,850	1,220	1,550	1,700	1,850	7,430	59,900	13,600	18,900	3,020	4,820	2,120
2	1,850	1,220	1,550	1,600	1,800	7,870	54,500	16,700	16,100	3,020	4,300	2,280
3	1,610	1,140	1,500	1,600	1,800	7,870	59,900	15,100	14,100	3,020	3,970	2,860
4	1,400	1,140	1,450	1,700	1,800	7,870	58,100	13,100	11,600	3,020	4,300	3,020
5	1,500	1,220	1,550	1,900	1,750	7,870	55,400	12,100	10,700	3,750	3,750	2,710
6	1,400	1,220	1,800	2,200	1,700	7,870	53,600	11,600	8,780	3,330	3,750	2,710
7	1,400	1,310	2,120	2,200	1,700	7,000	46,600	10,700	7,870	5,380	3,750	2,710
8	1,220	1,220	2,410	1,950	1,700	6,580	44,100	11,600	9,730	4,640	3,330	2,710
9	1,220	1,220	2,560	1,850	1,750	8,780	45,800	14,100	11,600	5,000	3,020	2,410
10	1,220	1,220	3,180	1,800	1,700	8,780	56,300	17,200	17,800	6,170	3,330	2,120
11	1,220	1,050	3,180	1,850	1,600	11,200	61,700	17,800	14,600	14,100	3,750	2,120
12	1,140	1,050	3,330	1,850	1,550	10,700	60,800	20,600	12,600	14,600	3,910	2,280
13	1,050	1,050	3,020	1,800	1,650	8,780	60,800	22,400	10,700	10,700	5,190	1,850
14	1,050	1,050	3,020	1,750	1,800	7,870	51,800	24,900	8,780	10,700	4,470	1,980
15	1,050	1,050	2,710	1,700	1,900	7,000	39,200	36,100	7,870	11,600	3,970	1,730
16	1,050	1,140	2,650	1,700	2,100	7,430	31,000	35,400	7,000	8,320	3,750	1,850
17	1,050	1,140	2,350	1,750	2,700	8,320	24,900	26,900	7,000	6,170	3,330	1,850
18	1,050	1,140	2,150	1,800	4,500	8,780	21,200	27,500	7,000	5,380	3,020	1,850
19	1,140	1,220	2,250	1,900	6,500	10,200	18,300	26,200	6,170	5,000	2,710	1,850
20	1,050	1,220	2,350	2,100	7,400	12,100	16,100	22,400	5,380	5,190	2,710	1,850
21	1,050	1,140	2,350	1,900	12,500	13,100	14,100	22,400	5,000	4,820	2,410	1,850
22	990	1,140	2,250	1,800	10,700	13,100	12,600	28,200	5,580	5,190	2,410	2,120
23	990	1,140	2,050	1,750	9,730	16,700	11,600	28,900	5,000	13,600	2,120	2,410
24	990	1,140	2,000	1,700	8,320	22,400	11,600	30,300	4,640	19,400	2,120	2,410
25	920	1,220	1,900	1,700	7,870	33,200	11,200	44,100	4,300	21,200	1,850	1,980
26	990	1,220	1,900	1,800	7,430	51,800	11,600	56,300	3,970	13,600	1,850	1,850
27	990	1,200	1,950	1,950	7,430	63,600	12,600	61,700	4,300	9,730	1,850	2,120
28	990	1,180	1,950	2,100	7,430	66,500	12,600	46,600	3,970	7,870	1,850	2,120
29	990	1,150	1,950	2,100	-------	73,500	11,600	31,700	3,750	6,170	2,120	1,850
30	1,140	1,300	1,900	2,050	-------	86,300	12,600	23,600	3,330	6,170	2,410	1,850
31	1,220	-------	1,800	1,900	-------	77,700	-------	18,900	-------	5,190	2,120	-------

Daily discharge in second-feet, of North Branch of Susquehanna River at Danville, 1928-1932—Continued.

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1932				1932				1932			
1		3,910	1,980	11		2,860	1,400	21	3,020	2,120	1,060
2		3,750	1,730	12		2,710	1,310	22	2,860	1,850	990
3		3,330	1,610	13		2,280	1,220	23	3,180	3,330	920
4		3,180	1,500	14		2,120	1,220	24	3,330	4,140	990
5		2,710	1,610	15		2,120	1,220	25	3,020	3,490	990
6		2,410	1,500	16		2,120	1,140	26	2,560	2,860	990
7		2,410	1,610	17		2,120	1,060	27	2,560	2,560	990
8		2,710	1,850	18		2,120	990	28	2,560	2,280	1,060
9		2,860	1,610	19		2,280	1,060	29	2,410	1,980	1,060
10		2,860	1,500	20		2,280	1,140	30	2,280	1,850	1,060
								31	2,710	1,850	

Note.—Discharge estimated for periods of ice effect, Jan. 4-22, Jan. 27 to Feb. 26, Dec. 1-15, 22-26, 1929, Jan. 22-26, Jan. 30 to Feb. 2, Nov. 27 to Dec. 6, Dec. 16-31, 1930, Jan. 1 to Feb. 21, 1931.

Monthly discharge in second-feet, of North Branch of Susquehanna River at Danville, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	3,820	1,920	2,540	0.227	0.26
November	7,000	3,080	3,880	.346	.39
December	24,200	3,670	7,900	.705	.81
January	22,000	2,800	5,730	.512	.59
February	48,400	3,000	6,200	.554	.58
March	131,000	14,100	43,600	3.89	4.48
April	158,000	17,800	57,600	5.14	5.74
May	86,300	19,400	34,100	3.04	3.50
June	16,700	3,670	6,230	.556	.62
July	5,000	2,030	3,350	.299	.34
August	2,660	1,500	2,010	.179	.21
September	2,270	1,400	1,800	.161	.18
The year	158,000	1,400	14,600	1.30	17.70
1929–30					
October	30,300	1,500	7,470	.667	.77
November	45,800	3,750	11,300	1.01	1.13
December	51,000	3,970	15,500	1.38	1.59
January	58,100	7,430	23,500	2.10	2.42
February	71,500	4,300	14,200	1.27	1.32
March	70,400	17,200	32,500	2.90	3.34
April	55,400	9,730	21,600	1.93	2.15
May	20,000	5,380	10,900	.973	1.12
June	26,400	5,770	10,500	.938	1.05
July	7,870	1,980	4,410	.394	.45
August	1,850	1,050	1,320	.118	.14
September	7,380	1,220	2,090	.187	.21
The year	71,500	1,050	12,900	1.15	15.69
1930–31					
October	1,850	920	1,190	.106	.12
November	1,310	1,050	1,170	.104	.12
December	3,330	1,450	2,220	.198	.23
January	2,200	1,600	1,850	.165	.19
February	12,500	1,550	4,310	.385	.40
March	86,300	6,580	22,200	1.98	2.28
April	61,700	11,200	34,700	3.10	3.46
May	61,700	10,700	25,400	2.27	2.62
June	18,900	3,330	8,600	.768	.86
July	21,200	3,020	7,900	.705	.81
August	5,190	1,850	3,170	.283	.33
September	3,020	1,730	2,180	.195	.22
The year	86,300	920	9,600	.857	11.64
1932					
July, 21-31	3,330	2,280	2,770	.247	.10
August	4,140	1,850	2,630	.235	.27
September	1,980	920	1,280	.114	.13

SUSQUEHANNA RIVER AT SUNBURY

LOCATION.—Staff and chain gages at Philadelphia & Reading Railway bridge at Sunbury, Northumberland County. Zero of gages is 419.00 feet above mean sea level.

DRAINAGE AREA.—18,200 square miles.

RECORDS AVAILABLE.—August, 1916, to September, 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 13.79 feet Mar. 16; minimum, 0.52 foot Sept. 7.

Maximum stage during year ending Sept. 30, 1930, 10.03 feet Feb. 27; minimum, 0.46 foot Aug. 31.

Maximum stage during year ending Sept. 30. 1931, 10.00 feet Mar. 30; minimum, 0.34 foot Nov. 28, 29.

Maximum stage during year ending Sept. 30, 1932, 13.16 feet Apr. 2; minimum, 0.32 foot Sept. 25-27.

1916-1932: Maximum stage, 18.0 feet Mar. 14, 1920; minimum, that of Sept. 25-27, 1932.

Maximum stage known, 21.0 feet June 1, 1889.

REMARKS.—Gage-height record good. Gage heights obtained at this station for flood warning purposes. Discharge not determined. The following current-meter measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge
1930	Feet	Second-feet	1932	Feet	Second-feet
April 23	4.65	36,400	June 6	1.94	9,510
Sept. 19	1.28	4,710	July 21	1.16	4,450
Oct. 15	.44	1,410			

Daily mean gage height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	1.07	1.25	1.86	1.71	2.14	7.54	4.59	6.53	4.24	2.21	1.06	0.74
2	1.09	1.24	2.69	1.68	1.84	6.34	4.41	6.03	3.83	2.10	1.08	.67
3	1.06	1.24	4.59	1.66	1.66	5.39	4.27	8.43	3.44	2.02	1.05	.63
4	1.02	1.26	4.59	1.54	1.64	4.94	4.09	10.18	3.16	1.99	1.06	.59
5	1.00	1.26	4.01	1.46	1.58	4.94	4.05	8.58	2.89	1.88	1.02	.55
6	1.05	1.27	3.51	1.89	1.57	6.09	4.39	7.58	2.78	1.85	.93	.55
7	1.05	1.25	3.21	2.84	1.75	6.69	7.59	7.18	2.56	1.74	.84	.53
8	1.02	1.29	3.16	2.51	2.37	6.29	8.04	6.93	2.48	1.63	.84	.71
9	.98	1.35	2.76	2.07	2.39	5.37	7.84	6.78	2.35	1.56	.82	.72
10	.95	1.28	2.56	2.49	2.47	4.79	6.34	6.08	2.23	1.68	.80	.77
11	.93	1.27	2.31	2.69	2.54	4.16	6.08	6.50	2.15	1.66	.78	.71
12	.91	1.24	2.21	2.67	2.30	3.91	6.99	5.08	2.06	1.90	.76	.71
13	.88	1.23	1.97	2.68	1.89	4.34	7.69	4.65	1.96	1.94	.83	.75
14	.85	1.25	1.97	1.76	1.64	6.49	7.84	4.37	1.89	1.98	.84	.97
15	.83	1.27	1.97	1.58	1.97	11.39	7.34	4.38	1.84	1.80	.95	1.04
16	.80	1.27	2.03	1.69	2.16	13.59	7.29	5.01	1.79	1.66	.95	.99
17	.79	1.27	1.98	1.77	2.09	13.49	9.24	5.63	1.72	1.56	.88	1.00
18	.83	1.31	2.09	1.69	2.34	12.24	9.94	5.43	1.65	1.44	.85	1.00
19	.87	1.34	2.01	2.44	2.56	9.89	9.01	5.03	1.59	1.46	.81	.97
20	.87	1.40	2.08	4.19	1.62	7.67	8.33	5.06	1.55	1.48	.80	.91
21	1.19	1.53	2.13	4.89	1.65	6.34	9.13	5.48	1.69	1.33	.80	.87
22	1.17	1.90	2.09	4.62	1.55	5.68	11.88	6.03	1.84	1.24	.75	.83
23	1.18	2.26	2.00	3.79	1.67	5.49	13.28	6.48	1.63	1.19	.73	.79
24	1.35	2.40	1.77	3.26	1.75	5.84	11.28	6.08	1.80	1.15	.74	.77
25	1.41	2.19	1.61	3.24	1.78	6.14	9.05	5.48	2.06	1.06	.71	.74
26	1.34	2.10	1.64	3.14	2.49	6.04	8.36	5.47	2.32	1.05	.67	.72
27	1.25	1.98	1.86	2.94	5.19	5.89	8.40	4.63	2.09	1.03	.66	.72
28	1.19	1.89	1.82	2.64	7.29	6.59	7.78	4.53	1.90	.99	.66	.68
29	1.28	1.82	1.86	2.54	-------	5.91	7.13	5.03	2.02	1.04	.66	.66
30	1.29	1.78	1.96	2.47	-------	5.23	6.86	5.37	2.23	1.13	.85	.68
31	1.27	-------	1.85	2.34	-------	4.84	-------	4.93	-------	1.07	.82	-------

Daily mean gage height, in feet, of Susquehanna River at Sunbury, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	0.63	1.98	2.58	3.35	2.69	7.42	3.83	2.97	3.40	2.26	0.85	0.50
2	1.43	1.95	2.28	3.25	2.72	6.35	3.82	2.86	3.06	2.21	.81	.57
3	4.03	1.95	2.24	3.41	2.54	5.87	3.64	2.88	2.71	2.37	.75	.62
4	4.78	2.20	2.19	4.52	2.46	5.69	3.78	2.69	2.50	2.31	.71	.60
5	5.33	2.35	2.18	5.97	2.49	5.12	3.91	2.62	2.31	2.14	.68	.58
6	4.42	2.37	2.33	5.22	2.72	4.75	3.71	2.61	2.15	1.95	.63	.57
7	3.50	2.40	2.46	4.58	2.60	4.35	4.65	2.58	2.04	1.83	.59	56
8	2.90	2.35	2.40	4.21	2.54	5.32	5.92	2.53	2.05	1.72	.60	.60
9	2.46	2.26	2.56	4.45	2.47	8.17	7.07	2.39	1.95	1.62	.60	.63
10	2.17	2.21	2.74	5.54	2.34	8.77	6.51	2.33	2.04	1.79	.60	.67
11	2.00	2.12	2.90	6.22	2.29	7.53	5.82	2.29	2.73	2.12	.57	.68
12	1.86	2.02	3.28	5.77	2.21	6.97	5.29	2.18	3.12	1.95	.54	.65
13	1.74	1.95	2.82	5.32	2.10	7.37	4.99	2.07	3.32	1.82	.51	.61
14	1.64	1.94	2.50	6.27	2.19	6.47	5.01	2.01	3.02	1.78	.50	.57
15	1.56	1.99	3.12	8.17	2.32	6.00	4.85	2.32	2.69	1.79	.50	.65
16	1.51	2.33	4.48	8.17	2.14	5.71	4.79	2.88	2.37	1.74	.52	.70
17	1.45	3.13	4.64	7.27	2.03	5.17	5.30	2.99	2.18	1.64	.57	.70
18	1.38	4.37	4.54	6.12	1.90	4.82	6.37	3.19	2.60	1.59	.53	1.34
19	1.30	6.68	5.78	5.07	1.97	4.99	6.52	2.96	3.71	1.50	.52	1.35
20	1.25	7.75	7.66	4.40	2.02	6.52	5.97	2.87	4.88	1.37	.52	1.17
21	1.25	6.76	7.93	3.70	2.37	6.27	5.50	3.11	4.55	1.28	.52	1.08
22	1.33	5.70	7.09	3.49	2.92	5.57	4.93	3.84	3.79	1.23	.52	.92
23	2.56	4.92	5.84	3.35	4.52	4.93	4.71	3.72	3.30	1.20	.52	.81
24	3.69	4.28	5.02	3.17	5.22	4.42	4.36	3.38	2.89	1.18	.52	.72
25	3.93	3.83	4.38	2.77	5.41	4.12	4.07	3.34	2.57	1.11	.59	.70
26	3.57	3.52	4.06	2.54	6.39	4.37	3.88	3.89	2.43	1.07	.59	.67
27	2.99	3.30	3.66	2.48	9.35	4.82	3.60	3.90	2.28	1.03	.54	.66
28	2.64	3.13	3.72	2.68	9.17	5.32	3.42	3.55	2.50	.99	.50	.70
29	2.36	3.00	3.64	2.80	-------	4.82	3.26	3.26	2.76	.95	.54	.80
30	2.20	1.87	3.56	2.83	-------	4.37	3.12	3.15	2.50	.89	.56	.78
31	2.04	-------	3.47	2.83	-------	4.04	-------	3.68	-------	.88	.49	-------
1930-31												
1	.78	.48	.68	.82	.99	2.33	7.75	4.15	4.45	1.44	1.59	.91
2	.71	.48	.62	.81	1.17	2.34	7.75	4.15	4.12	1.44	1.44	.89
3	.70	.49	.59	.78	1.26	2.38	8.42	4.02	3.72	1.41	1.40	1.06
4	.65	.49	.75	68	1.25	2.39	8.36	3.75	3.45	1.42	1.47	1.15
5	.62	.48	.67	.70	1.17	2.40	8.60	3.55	3.16	1.76	1.41	1.10
6	.58	.48	.72	.89	1.14	2.34	8.80	3.40	2.89	1.84	1.34	1.22
7	.58	.51	.85	.90	.93	2.20	7.85	3.25	2.75	1.88	1.34	1.20
8	.55	.51	1.01	.89	.93	2.14	7.20	3.33	3.21	1.94	1.27	1.18
9	.52	.49	1.06	.86	.96	2.49	7.00	4.58	4.20	1.86	1.28	1.09
10	.52	.47	1.19	.78	.96	2.58	7.55	5.10	4.70	2.03	1.49	1.01
11	.49	.43	1.24	.79	.99	2.72	7.90	5.02	4.32	2.63	1.59	.91
12	.48	.39	1.23	.93	.96	2.59	7.92	4.95	3.68	3.20	1.59	.87
13	.47	.40	1.22	1.00	.98	2.38	7.68	5.00	3.35	2.69	1.86	.86
14	.46	.40	1.15	.95	.98	2.30	6.92	5.88	3.04	2.52	1.82	.80
15	.45	.41	1.07	.86	.97	2.20	6.05	7.50	2.76	2.42	1.64	.76
16	.43	.45	1.12	.86	1.10	2.18	5.32	7.48	2.62	2.25	1.47	.79
17	.44	.49	.96	.92	1.16	2.31	4.72	6.32	2.63	2.05	1.40	.79
18	.44	.52	.95	.89	1.71	2.44	4.35	5.90	2.63	1.78	1.25	.77
19	.42	.52	.95	.95	2.94	2.60	3.95	5.90	2.49	1.65	1.15	.74
20	.42	.52	.91	.98	2.86	2.80	3.68	5.30	2.28	1.64	1.13	.75
21	.42	.52	.90	.98	2.80	2.90	3.45	5.40	2.12	1.64	1.08	.83
22	.41	.52	.86	.72	3.03	3.02	3.23	5.98	2.08	1.72	1.05	.89
23	.43	.52	.88	.56	3.15	3.37	3.19	6.42	2.02	2.74	.96	1.01
24	.44	52	.85	.88	2.93	3.94	3.49	7.75	1.93	3.41	.93	.93
25	.44	.64	.76	.85	2.58	4.92	3.55	8.72	1.85	3.25	.90	.99
26	.43	.60	.76	.87	2.43	6.36	3.62	8.80	1.84	2.91	.88	1.03
27	.40	.48	.77	.88	2.40	7.23	3.92	8.50	1.81	2.56	.89	.95
28	.42	.37	.83	.97	2.37	7.44	4.30	7.42	1.72	2.24	.90	.94
29	.42	.34	.86	1.02	-------	8.23	4.45	6.12	1.60	2.02	.91	.89
30	.42	.52	.89	1.02	-------	9.88	4.35	5.08	1.47	1.85	1.00	1.18
31	.45	-------	.84	1.04	-------	9.08	-------	4.70	-------	1.74	.97	-------

Daily mean gage height, in feet, of Susquehanna River at Sunbury, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1.08	0.81	1.18	2.65	5.93	2.79	11.01	2.88	2.14	1.72	1.17	0.68
2	.97	.82	1.23	2.71	5.90	2.79	13.16	3.04	2.10	1.58	1.24	.66
3	.87	.82	1.23	2.99	4.93	2.70	11.78	3.08	2.01	1.65	1.14	.66
4	.82	.82	1.56	3.02	4.60	2.62	10.96	3.02	1.92	1.82	1.18	.70
5	.80	.87	1.69	2.99	4.33	2.60	9.61	2.97	1.92	2.11	1.04	.64
6	.77	.92	1.63	3.04	4.18	2.68	8.39	2.86	1.90	2.67	.95	.64
7	.70	.95	1.60	3.63	4.02	2.91	7.41	2.75	1.78	2.56	.88	.61
8	.79	.96	1.86	5.73	3.79	2.89	6.73	2.83	1.68	2.43	.91	.65
9	.75	.92	2.01	7.20	3.72	2.54	6.08	4.12	1.76	2.28	1.02	.67
10	.69	.89	1.88	6.22	3.72	2.41	6.48	8.07	1.64	2.25	1.03	.55
11	.62	.87	1.67	5.15	3.92	2.35	7.32	8.22	1.52	2.12	1.00	.53
12	.59	.91	1.68	4.52	6.79	2.43	7.98	9.39	1.44	2.09	.96	.52
13	.58	.93	1.76	4.02	7.57	2.44	8.20	9.15	1.48	1.93	.88	.52
14	.58	.84	2.53	3.70	7.29	2.46	7.70	7.18	1.57	1.77	.82	.49
15	.62	.88	4.21	3.52	6.65	2.27	6.88	6.16	1.54	1.60	.82	.42
16	.84	.92	4.91	3.52	5.66	2.35	6.25	5.48	1.50	1.44	.82	.40
17	.83	.91	5.28	4.28	4.86	2.27	5.65	5.06	1.87	1.38	.81	.42
18	.82	.98	4.65	5.48	4.28	2.29	5.17	4.46	2.02	1.30	.80	.41
19	.82	1.11	4.65	5.39	4.01	2.46	4.79	3.94	2.22	1.24	.80	.40
20	.79	1.55	3.41	6.07	3.81	2.73	4.51	3.61	2.00	1.15	.82	.40
21	.77	1.73	3.11	5.54	3.54	2.84	4.14	3.30	1.89	1.13	.82	.39
22	.75	1.62	2.88	4.94	3.26	3.27	3.91	3.10	1.78	1.08	.82	.36
23	.77	1.46	2.84	5.04	3.09	2.52	3.67	2.90	1.61	1.20	.90	.36
24	.83	1.41	2.66	5.77	2.92	3.74	3.49	2.71	1.55	1.26	1.21	.35
25	.83	1.36	3.08	6.69	2.71	4.10	3.33	2.57	1.49	1.18	1.16	.32
26	.83	1.31	3.60	6.39	2.65	4.14	3.26	2.43	1.66	1.12	1.01	.32
27	.82	1.27	3.70	5.59	2.61	4.67	3.16	2.31	1.62	1.07	.90	.34
28	.75	1.28	3.62	5.10	2.66	6.27	3.04	2.38	1.95	1.04	.81	.42
29	.81	1.29	3.24	4.80	2.79	6.93	2.98	2.49	1.65	1.01	.75	.41
30	.80	1.30	2.93	4.83	-------	6.59	2.90	2.33	1.64	.98	.68	.39
31	.79	-------	2.81	5.33	-------	6.91	-------	2.24	-------	1.02	.68	-------

SUSQUEHANNA BASIN—STATION NO. 6

SUSQUEHANNA RIVER AT HARRISBURG

LOCATION.—Water-stage recorder at Nagle Street 500 feet above sanitary dam and at Market Street Bridge 3,700 feet above sanitary dam, and chain gage at Walnut Street Bridge, in Harrisburg, Dauphin County. Zero of gages is 289.40 feet above mean sea level.

DRAINAGE AREA.—24,100 square miles.

RECORDS AVAILABLE.—January, 1891, to September, 1932. All records prior to Oct. 1, 1923, have been revised in connection with the power project at Conowingo, Md. A complete set of the revised records is on file at the office of the United States Geological Survey at Washington, D. C., and also at the Department of Forests and Waters at Harrisburg.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 235,000 second-feet Mar. 17 (Nagle Street gage height, 12.55 feet; Walnut Street gage height, 13.8 feet from graph based on gage readings); minimum, 2,640 second-feet Aug. 27 (Nagle Street gage height, 2.93 feet; Walnut Street gage height, 2.94 feet).

Maximum discharge during year ending Sept. 30, 1930, 177,000 second-feet Feb. 28 (Nagle Street gage height, 10.15 feet; Walnut Street gage height, 11.4 feet from graph based on gage readings); minimum, 2,060 second-feet Sept. 1 (Nagle Street gage height, 2.91 feet; Walnut Street gage height, 2.92 feet).

Maximum discharge during year ending Sept. 30, 1931, 153,000 second-feet Mar. 31 (Nagle Street gage height, 9.18 feet; Walnut Street gage height, 10.4 feet); minimum, about 1,600 second-feet Nov. 29 (Nagle Street gage height, 2.48 feet; Walnut Street gage height, 2.56 feet).

Maximum discharge during year ending Sept. 30, 1932, 245,000 second-feet Apr. 2 (Nagle Street gage height, 13.02 feet; Walnut Street gage height, 14.30 feet); minimum, 1,830 second-feet Sept. 26 (Nagle Street gage height, 2.77 feet; Walnut Street gage height, 2.82 feet).

1891-1932: Maximum discharge, about 613,000 second-feet May 22, 1894 (gage height, 25.7 feet at Walnut Street); minimum, that of Nov. 29, 1930.

REMARKS.—Records good except those for periods of ice effect, which are fair. All costs of equipment, maintenance, and operation of Nagle Street station paid by Philadelphia Electric Co., Philadelphia, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	6,690	7,200	10,660	9,410	8,500	129,000	45,800	81,300	45,800	15,400	5,610	3,880
2	6,820	7,200	11,000	9,120	8,500	104,000	42,300	75,800	37,900	14,600	5,370	3,680
3	6,690	7,080	19,100	9,100	8,500	78,600	39,300	122,800	31,800	13,300	5,370	3,380
4	6,690	7,200	42,300	7,800	8,500	67,300	36,900	172,000	27,800	12,600	5,610	3,280
5	6,320	7,200	37,400	8,400	8,700	64,400	36,600	153,000	24,500	12,100	5,260	3,190
6	6,560	7,080	30,800	10,500	9,500	97,000	45,800	122,000	22,200	11,400	4,820	3,100
7	6,560	7,080	25,900	16,500	15,600	107,000	83,200	102,000	20,600	11,000	4,820	3,100
8	6,320	7,080	22,600	9,000	20,800	97,000	114,000	97,000	19,500	10,200	4,610	3,980
9	6,080	6,950	19,900	11,800	24,500	81,300	94,500	89,300	18,000	9,720	4,280	4,820
10	5,730	7,080	18,000	15,000	23,700	59,900	78,600	78,600	16,800	9,260	4,280	4,500
11	5,490	7,330	16,200	21,000	20,800	48,900	71,600	65,800	15,400	9,260	4,500	4,280
12	5,370	7,080	14,400	21,000	18,800	42,300	81,300	56,800	14,100	9,720	4,390	4,610
13	5,260	6,820	13,300	21,000	15,200	41,500	104,000	50,500	13,300	10,300	4,500	4,280
14	5,150	6,560	12,000	16,000	14,300	58,400	112,000	47,400	12,600	11,300	4,180	5,370
15	4,930	6,560	11,800	10,300	14,300	143,000	104,000	42,900	12,300	11,000	4,390	7,460
16	4,820	6,690	11,000	9,200	13,500	224,000	165,000	44,400	11,600	10,200	5,490	7,330
17	4,820	6,560	12,100	9,570	13,700	233,000	170,000	55,300	11,000	9,200	5,150	6,690
18	4,820	6,560	12,100	10,600	14,200	215,000	196,000	59,900	10,500	8,560	4,720	6,200
19	4,930	6,950	12,000	12,400	14,200	175,000	163,000	56,800	10,000	8,980	4,390	5,960
20	4,720	7,200	12,000	18,100	13,300	125,000	131,000	53,400	10,500	7,850	4,080	5,490
21	4,610	7,460	12,100	36,300	11,200	89,300	129,000	55,300	11,000	7,720	3,780	5,150
22	4,720	8,270	11,500	52,100	10,660	70,200	174,000	61,400	12,300	7,080	3,880	4,930
23	6,200	10,300	11,500	42,100	10,200	62,900	222,000	68,800	11,600	6,690	3,880	4,820
24	6,200	13,700	10,600	30,600	9,800	61,400	208,000	71,600	13,300	6,440	3,780	4,610
25	7,080	15,000	9,570	25,400	10,200	68,800	155,000	61,400	16,600	6,200	3,580	4,390
26	7,590	13,900	9,120	20,600	16,800	71,600	124,000	53,700	18,600	6,560	3,480	4,180
27	7,330	12,400	9,410	16,800	93,400	65,800	121,000	47,400	18,000	7,200	3,580	4,080
28	7,080	11,600	10,200	15,800	124,000	70,200	114,000	44,400	15,400	6,080	3,380	3,880
29	6,560	11,000	10,000	13,300	-------	71,600	97,000	42,300	13,700	5,850	3,280	3,780
30	6,690	10,800	10,000	10,000	-------	59,900	89,300	47,400	14,100	5,490	3,280	4,500
31	6,950	-------	8,840	8,500	-------	50,500	-------	55,300	-------	5,490	3,480	-------
1929-30												
1	3,980	17,000	13,600	32,300	16,000	122,000	36,100	25,600	27,600	16,200	4,180	2,690
2	8,550	16,600	13,000	31,600	18,500	87,900	34,000	24,560	24,700	14,200	3,980	2,880
3	44,000	16,000	11,000	31,000	19,000	73,000	33,000	23,800	21,700	13,700	3,780	2,880
4	70,200	17,800	11,000	35,100	19,000	68,800	32,000	23,100	18,600	14,800	3,580	2,980
5	59,900	21,200	14,000	58,400	24,500	61,400	33,600	21,700	16,200	13,900	3,480	2,880
6	55,300	21,900	13,000	62,900	24,100	52,100	34,300	19,700	14,800	13,000	3,190	2,690
7	38,800	21,200	16,500	50,500	22,100	47,400	39,600	19,700	13,300	12,600	3,190	2,600
8	28,600	20,100	18,000	44,400	20,000	64,400	61,400	19,300	12,000	11,800	2,920	2,410
9	22,400	19,500	19,000	40,900	19,000	104,000	86,700	18,400	12,800	10,500	2,820	2,410
10	18,000	18,200	20,000	45,800	18,500	141,000	84,000	16,800	13,000	10,300	2,730	2,600
11	15,000	16,800	21,000	58,400	18,000	119,000	70,200	16,200	15,400	9,870	2,640	2,880
12	13,300	15,800	21,000	65,800	17,500	97,000	59,900	15,400	20,100	12,100	2,640	2,880
13	12,000	15,000	19,600	58,400	21,100	89,300	52,100	14,200	23,300	11,100	2,550	3,070
14	11,000	14,200	25,900	56,800	24,100	84,600	48,900	13,900	24,500	10,300	2,550	2,880
15	10,200	13,900	38,600	91,000	24,900	73,000	47,400	15,600	21,200	9,870	2,550	2,790
16	9,410	14,600	52,300	109,000	21,900	67,300	45,800	19,500	17,800	9,260	2,500	2,880
17	8,840	19,500	56,800	99,500	17,400	59,900	48,900	24,200	15,800	9,260	2,600	3,170
18	8,410	39,700	48,900	78,600	17,400	52,100	62,900	24,700	18,000	9,120	2,600	3,070
19	8,130	85,200	50,500	59,900	19,300	48,900	78,600	24,900	24,500	8,410	2,690	6,760
20	7,720	112,000	81,300	44,400	22,800	61,400	70,200	23,100	34,000	7,850	2,600	6,900
21	7,330	102,000	107,000	37,900	31,000	75,800	61,400	22,600	45,800	7,200	2,600	5,450
22	8,560	78,600	94,500	32,300	27,300	65,800	55,300	25,400	36,900	6,560	2,600	4,880
23	50,300	59,900	75,800	25,200	33,300	55,300	50,500	31,600	29,600	6,320	2,600	4,360
24	79,200	48,800	58,400	22,000	50,500	47,400	45,800	28,600	24,700	6,080	2,600	3,840
25	53,700	40,400	48,900	19,000	61,400	40,900	41,800	26,400	20,600	5,960	2,600	3,550
26	41,800	35,300	42,900	20,000	90,900	40,100	38,200	26,600	17,800	5,610	2,600	3,400
27	33,800	31,600	36,600	19,000	140,000	45,800	35,300	32,000	16,400	5,260	3,070	3,170
28	27,100	29,100	33,600	18,500	166,000	53,700	32,300	30,800	15,000	4,930	2,880	2,980
29	22,400	26,600	34,300	18,500	-------	52,100	29,600	27,300	16,600	4,720	2,690	2,880
30	19,700	22,400	34,600	18,500	-------	45,800	27,000	24,700	18,200	4,390	2,600	3,070
31	18,000	-------	33,300	17,500	-------	39,800	-------	24,700	-------	4,280	2,600	-------

Daily discharge, in second-feet, of Susquehanna River at Harrisburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	3,460	2,230	2,300	3,050	5,500	12,900	116,000	39,300	44,000	8,090	9,370	5,560
2	3,550	2,410	2,600	3,070	4,600	12,600	113,000	36,500	41,000	7,270	8,360	5,450
3	3,460	2,410	2,060	3,170	4,200	12,600	129,000	36,000	35,700	7,020	7,810	5,560
4	3,170	2,410	2,980	3,260	5,000	12,600	124,000	33,300	30,000	8,090	7,410	6,140
5	2,980	2,410	3,460	3,460	5,100	12,600	124,000	30,000	25,800	9,960	7,270	6,140
6	2,790	2,230	3,740	4,260	5,110	12,600	129,000	27,800	23,000	11,200	7,020	6,020
7	2,600	2,320	3,460	4,360	4,990	12,600	112,000	26,100	20,700	11,600	6,770	5,910
8	2,500	2,320	3,550	4,050	2,600	12,200	97,000	25,600	21,800	12,800	6,770	5,680
9	2,410	2,410	4,260	3,840	4,150	12,400	89,300	37,100	29,800	12,600	6,640	5,560
10	2,320	2,500	4,990	4,570	3,940	18,400	89,300	55,300	39,300	13,800	7,540	5,450
11	2,320	2,410	5,560	4,360	7,020	17,600	99,500	55,300	39,600	24,200	11,100	4,990
12	2,230	2,410	6,020	4,260	4,880	17,400	99,500	50,400	32,300	34,900	12,200	4,670
13	2,140	2,410	5,790	4,260	4,990	15,800	99,500	50,400	27,500	29,200	10,300	4,360
14	2,140	2,320	5,790	4,260	5,340	14,000	86,700	59,900	23,400	22,000	10,400	3,940
15	2,060	2,230	5,450	3,900	7,410	12,900	71,600	94,500	20,200	18,900	10,400	3,740
16	2,060	2,230	4,000	2,900	6,640	12,200	86,700	107,000	18,200	17,800	9,370	3,550
17	2,060	2,320	2,320	3,460	6,020	12,600	47,200	86,700	17,800	15,000	8,220	3,550
18	1,960	2,320	2,790	3,460	7,140	13,500	40,800	70,200	17,600	12,400	7,020	3,550
19	2,000	2,410	4,260	3,840	12,200	15,000	35,400	64,400	16,800	11,900	6,400	3,840
20	1,960	2,410	4,050	3,840	18,400	16,200	30,800	56,800	15,000	12,600	5,910	3,840
21	2,000	2,410	3,740	3,800	15,800	18,700	27,500	58,400	13,100	12,400	5,560	4,150
22	2,140	2,500	2,980	3,400	16,400	19,800	25,100	73,000	11,900	12,800	5,340	4,150
23	2,140	2,410	3,170	3,500	19,300	20,400	23,400	89,300	11,600	12,200	5,340	4,460
24	2,000	2,410	2,980	3,550	18,900	25,800	32,000	126,000	11,200	20,700	4,990	4,570
25	1,930	2,230	3,070	3,360	16,800	34,400	35,700	134,000	10,800	25,800	4,670	4,670
26	2,000	2,320	3,260	3,360	15,300	50,400	34,400	134,000	10,100	23,400	4,570	4,670
27	2,000	2,300	3,940	3,360	14,400	75,800	33,100	124,000	10,100	19,500	4,670	4,990
28	2,060	1,800	4,050	3,840	13,300	86,700	36,800	107,000	10,900	16,000	4,990	4,780
29	2,140	1,700	4,050	4,570	-------	99,300	41,000	78,600	9,960	12,900	5,680	4,990
30	2,230	1,880	4,150	5,500	-------	143,000	41,000	61,400	9,070	11,600	5,910	4,880
31	2,230	-------	4,050	5,700	-------	145,000	-------	50,400	-------	10,300	5,680	-------
1931-32												
1	5,340	2,880	4,990	16,600	56,800	17,800	163,000	22,700	15,000	9,070	4,520	3,200
2	5,680	2,980	4,780	18,700	61,400	17,800	240,000	24,200	14,000	9,670	4,630	3,000
3	4,990	2,980	4,880	25,100	53,700	17,800	221,000	25,100	13,500	8,630	5,650	3,000
4	4,570	2,980	5,110	26,300	44,000	17,800	192,000	24,400	12,900	8,930	5,650	3,890
5	4,150	2,980	5,680	24,600	41,000	17,000	167,000	23,400	12,800	9,810	5,540	3,390
6	4,050	3,070	7,020	23,900	41,000	16,800	134,000	22,700	12,900	12,200	5,190	3,890
7	3,940	3,070	7,140	27,800	41,300	15,300	107,000	21,800	12,600	16,200	4,630	3,300
8	4,050	3,360	6,520	44,400	37,400	14,000	89,300	21,100	11,200	15,700	4,420	3,000
9	4,050	3,400	5,790	77,800	33,300	13,200	78,600	22,500	10,400	14,400	4,310	2,810
10	3,940	3,460	11,700	78,600	31,500	12,900	73,000	68,800	10,300	13,100	4,310	2,910
11	3,740	3,360	9,370	61,400	31,000	12,800	89,300	112,000	9,810	12,600	4,630	2,810
12	3,360	3,360	8,360	47,200	43,400	12,800	107,000	146,000	9,370	11,600	4,630	2,620
13	3,260	3,260	8,220	38,200	81,300	13,000	116,000	153,000	9,070	11,600	4,420	2,440
14	3,170	3,170	10,600	32,500	86,700	13,100	109,000	124,000	9,070	10,600	4,200	2,310
15	3,070	3,260	19,300	29,000	78,600	13,200	94,500	94,500	9,670	9,370	3,780	2,250
16	3,260	3,260	38,500	27,300	64,400	13,800	78,600	75,800	11,200	8,220	3,590	2,190
17	3,170	3,360	47,200	29,800	50,400	15,300	67,300	62,900	9,220	7,400	3,490	2,050
18	2,880	3,360	45,600	44,000	41,000	16,800	58,400	52,100	10,400	6,760	3,490	2,050
19	2,880	3,460	36,000	48,800	36,000	18,700	52,100	42,500	12,100	6,250	3,680	2,050
20	2,880	3,840	28,000	55,300	32,000	22,700	45,600	36,500	13,100	6,250	3,780	2,140
21	2,790	4,880	23,200	58,400	28,800	27,500	40,200	32,000	12,600	5,880	3,780	2,090
22	2,790	7,020	20,400	48,800	26,100	29,500	36,000	28,500	11,200	5,880	3,780	2,090
23	2,690	6,640	17,800	41,600	23,000	34,600	33,100	25,600	10,400	6,500	3,680	2,050
24	2,790	6,020	16,200	45,600	20,900	38,200	30,500	23,000	9,220	6,000	3,590	1,950
25	2,880	5,560	15,500	64,400	19,800	40,500	28,300	20,900	8,780	5,880	4,520	1,930
26	2,690	5,220	21,800	71,600	17,400	42,500	26,600	19,100	8,490	6,000	5,300	1,920
27	2,690	4,990	24,600	64,400	16,400	42,500	25,400	17,600	9,670	5,540	4,730	2,000
28	2,790	5,220	25,800	52,100	16,200	64,200	23,900	17,000	10,300	5,770	4,100	2,050
29	3,070	5,110	24,200	45,600	16,400	94,500	22,700	16,800	11,700	5,300	3,590	2,000
30	2,980	4,880	20,900	42,200	-------	97,000	21,800	17,000	9,960	4,960	3,780	2,140
31	2,980	-------	17,400	44,000	-------	104,000	-------	15,900	-------	4,730	3,590	-------

Note.—Discharge estimated for periods of ice effect Dec. 22, 23, 1928, Jan. 3-16, 19-21, 24, 25, Jan. 28 to Feb. 6, Feb. 20-25, Dec. 1-13, 1929, Jan. 23 to Feb. 14, Nov. 27, 28, Dec. 1, 2, 16, 1930, Jan. 15, 16, 21-23, Jan. 30 to Feb. 5, Dec. 8-11, 1931. Mar. 6-16, 1932.

Monthly discharge, in second-feet, of Susquehanna River at Harrisburg, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	7,590	4,610	5,990	0.249	0.29
November	15,000	6,560	8,460	.351	.39
December	42,300	8,840	15,400	.639	.74
January	52,100	7,800	17,000	.705	.81
February	124,000	8,500	20,500	.851	.89
March	233,000	41,500	94,600	3.93	4.53
April	222,000	36,600	110,000	4.56	5.09
May	172,000	42,300	72,100	2.99	3.45
June	45,800	10,000	17,700	.734	.82
July	15,400	5,490	9,250	.384	.44
August	5,610	3,280	4,360	.181	.21
September	7,460	3,100	4,630	.192	.21
The year	233,000	3,100	31,700	1.32	17.87
1929–30					
October	79,200	3,980	26,300	1.09	1.26
November	112,000	13,900	33,700	1.40	1.56
December	107,000	11,000	37,600	1.56	1.80
January	109,000	17,500	45,300	1.88	2.17
February	166,300	16,000	35,900	1.49	1.55
March	141,000	39,800	68,900	2.86	3.30
April	86,700	27,600	49,200	2.04	2.28
May	32,000	13,900	22,700	.942	1.09
June	45,800	12,600	21,000	.871	.97
July	16,200	4,280	9,340	.388	.45
August	4,180	2,500	2,880	.120	.14
September	6,900	2,410	3,400	.141	.16
The year	166,000	2,410	29,700	1.23	16.73
1930–31					
October	3,550	1,930	2,360	.098	.11
November	2,500	1,700	2,300	.095	.11
December	6,020	2,060	3,830	.159	.18
January	5,700	2,900	3,880	.161	.19
February	19,300	2,600	9,120	.378	.39
March	145,000	12,200	32,200	1.34	1.54
April	129,000	23,400	71,700	2.98	3.32
May	134,000	26,100	67,100	2.78	3.20
June	44,000	9,070	21,600	.896	1.00
July	34,900	7,020	15,400	.639	.74
August	12,200	4,570	7,220	.300	.35
September	6,140	3,550	4,790	.199	.22
The year	145,000	1,700	20,200	.838	11.35
1931–32					
October	5,680	2,690	3,470	.144	.17
November	7,020	2,880	4,020	.167	.19
December	47,200	4,780	17,500	.726	.84
January	78,600	16,600	43,700	1.81	2.09
February	86,700	16,200	40,400	1.68	1.81
March	104,000	12,800	29,900	1.24	1.43
April	240,000	21,800	85,700	3.56	3.97
May	153,000	15,900	45,500	1.89	2.17
June	15,000	8,490	11,000	.456	.51
July	16,200	4,730	8,740	.363	.42
August	5,650	3,490	4,290	.178	.21
September	3,890	1,920	2,500	.104	.12
The year	240,000	1,920	24,700	1.02	13.93

SUSQUEHANNA RIVER AT MARIETTA

LOCATION.—Water-stage recorder 420 feet above the mouth of Chickies Creek and half a mile downstream from Marietta, Lancaster County. Zero of gage is 200.00 feet above mean sea level.

DRAINAGE AREA.—25,990 square miles.

RECORDS AVAILABLE.—October, 1931, to September, 1932.

EXTREMES.—Maximum discharge during year, 256,000 second-feet Apr. 2 (gage height, 47.66 feet); minimum, 618 second-feet Sept. 26 (gage height, 30,89 feet).

Highest stage known is 58.0 feet June, 1889 (discharge about 700,000 second-feet).

REMARKS.—Records fair. Discharge estimated because of ice Mar. 6-20. Flows below 8,000 second-feet regulated by York Haven Power Co. plant upstream.

Daily discharge, in second-feet, 1932.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,500	55,400	19,300	148,000	25,200	16,900	10,600	5,210	4,080
2	21,400	60,000	19,300	244,000	29,100	15,800	10,700	5,360	3,770
3	25,900	55,500	18,800	234,000	27,700	15,000	10,000	5,130	3,910
4	28,600	47,700	18,800	197,000	26,900	14,500	9,920	6,670	3,040
5	27,200	44,900	18,300	173,000	25,000	14,100	10,600	6,460	3,900
6	27,000	44,100	17,500	138,000	25,000	14,200	12,100	6,080	3,910
7	31,500	44,300	15,900	111,000	23,900	14,300	15,800	5,590	4,400
8	39,800	40,200	14,600	92,200	23,100	13,500	18,000	5,830	3,360
9	69,600	35,900	13,700	80,800	23,800	11,400	16,700	4,800	2,730
10	81,900	34,200	13,400	76,500	48,600	11,100	15,000	4,610	2,530
11	64,900	33,500	13,300	84,400	106,000	11,000	14,500	5,130	3,240
12	51,300	37,100	13,300	96,100	138,000	10,700	13,100	5,230	3,070
13	42,100	73,100	13,500	109,000	160,000	10,800	12,500	4,730	2,670
14	36,500	82,500	13,600	111,000	132,000	10,200	12,500	4,440	2,570
15	31,900	78,100	13,700	98,300	100,000	10,700	11,000	4,740	2,430
16	28,600	67,900	14,400	83,700	80,300	11,700	9,670	4,270	2,170
17	28,400	55,000	16,100	72,500	67,000	11,600	8,550	3,930	2,170
18	41,700	44,700	17,700	63,300	57,400	10,500	7,820	3,950	2,130
19	49,800	38,300	19,700	55,600	48,100	12,700	7,430	4,120	1,580
20	54,500	34,100	24,000	48,700	40,900	14,000	6,700	3,740	2,010
21	58,400	30,900	30,300	43,200	35,600	14,900	6,970	3,930	2,070
22	51,000	28,100	32,300	39,100	31,600	13,900	7,120	4,250	2,290
23	44,200	24,600	39,000	35,500	28,200	12,500	7,130	3,810	2,610
24	45,700	22,900	41,000	32,800	25,600	11,300	7,780	4,120	1,560
25	59,400	20,900	43,000	30,500	23,300	9,700	6,880	3,950	2,140
26	70,300	19,600	45,500	28,600	21,300	9,050	6,420	4,900	1,380
27	63,600	18,400	45,700	26,900	19,700	10,700	6,940	5,790	1,410
28	53,600	18,100	70,800	25,400	18,600	11,800	6,070	5,260	2,140
29	47,900	18,400	100,000	24,500	18,100	12,700	6,340	4,160	2,060
30	44,500	----------	101,000	23,000	18,600	12,800	5,880	4,360	1,710
31	45,700	----------	100,000	----------	18,100	----------	5,370	3,940	----------

Monthly discharge, in second-feet, 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	----------	----------	[a]3,960	0.152	0.18
November	----------	----------	[a]4,340	.167	.19
December	----------	----------	[a]17,900	.689	.79
January	81,900	19,500	44,700	1.72	1.98
February	82,500	18,100	41,700	1.60	1.73
March	101,000	13,300	31,500	1.21	1.40
April	244,000	23,000	87,600	3.37	3.76
May	160,000	18,100	47,300	1.82	2.10
June	16,900	9,700	12,500	.481	.54
July	18,000	5,370	9,870	.380	.44
August	6,670	3,740	4,790	.184	.21
September	4,400	1,380	2,630	.101	.11
The year	244,000	1,380	25,600	.985	13.43

[a] Records determined from power house records and furnished by Safe Harbor Water Power Corp.

CHEMUNG RIVER AT CORNING, N. Y.

LOCATION.—Chain gage at Bridge Street Bridge at Corning, Steuben County. Zero of gage is 912.82 feet above mean sea level.

DRAINAGE AREA.—1,940 square miles.

RECORDS AVAILABLE.—December, 1909, to September, 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 15.90 feet Apr. 21; minimum, 2.00 feet Sept. 6-8.

Maximum stage during year ending Sept. 30, 1930, 10.9 feet (determined from hydrograph) Feb. 26; minimum, 1.9 feet Aug. 12-13.

Maximum stage during year ending Sept 30, 1931, 9.6 feet Mar. 29; minimum, 1.9 feet Oct. 5-24, Nov. 29, 30.

Maximum stage during year ending Sept. 30, 1932, 13.5 feet during night of Mar. 31-Apr. 1; minimum, 1.9 feet Sept. 24.

1909-1932: Maximum stage, 18.0 feet (determined from hydrograph) Mar. 13, 1920; minimum, 1.8 feet Sept. 2, 3, 1921.

Maximum stage known, 20.0 feet June 1, 1889.

REMARKS.—Gage-height records good. Gage heights obtained at this station are for flood warning purposes. Discharge not determined.

Daily mean gage height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	2.30	2.90	7.00	2.90	3.40	5.60	4.90	5.05	4.10	2.80	2.40	2.10
2	2.30	2.90	5.40	3.00	3.40	5.65	5.10	4.45	3.90	3.30	2.40	2.10
3	2.30	2.90	4.70	2.90	3.20	5.40	**4.60**	**7.20**	3.70	**2.80**	**2.40**	**2.10**
4	2.30	2.90	4.35	3.10	3.10	5.55	4.45	6.30	3.60	2.80	2.40	2.10
5	2.30	3.00	4.20	3.00	3.10	6.30	7.15	6.55	3.50	2.70	2.40	2.10
6	2.30	3.00	4.20	3.60	3.10	6.35	9.65	6.40	3.50	2.70	2.40	2.00
7	2.20	3.00	3.80	4.35	3.10	5.60	6.70	6.95	3.40	2.70	2.30	2.00
8	2.20	2.90	3.50	3.05	3.00	4.80	5.85	6.20	3.30	2.70	2.30	2.00
9	2.20	2.90	3.30	3.10	3.00	4.50	5.45	5.70	3.20	2.70	2.20	2.40
10	2.20	2.90	3.20	3.60	3.00	4.30	5.30	5.30	3.10	2.90	2.20	2.40
11	2.20	3.00	3.20	3.50	3.00	4.10	7.20	4.90	3.00	2.90	2.20	2.50
12	2.20	3.00	3.10	3.40	3.00	4.25	8.40	4.80	2.90	3.00	2.20	2.40
13	2.20	3.00	3.10	3.40	3.00	7.05	7.20	4.70	2.90	2.90	2.20	2.40
14	2.20	3.00	3.10	3.40	3.00	11.05	6.40	5.10	3.00	2.80	2.20	2.30
15	2.20	3.00	3.10	3.10	3.00	11.50	5.90	6.40	2.90	2.70	2.20	2.30
16	2.20	3.00	3.10	3.10	3.00	10.00	6.80	6.05	2.90	2.60	2.20	2.30
17	2.30	3.00	3.10	3.10	2.90	7.10	7.40	5.90	2.80	2.50	2.10	2.30
18	2.90	3.00	3.30	4.50	2.80	6.30	7.45	5.40	2.70	2.50	2.10	2.30
19	3.30	3.30	3.80	6.95	2.80	5.90	7.20	5.55	2.70	2.60	2.10	2.30
20	3.30	4.95	3.40	5.30	2.90	5.50	11.70	6.45	2.60	2.60	2.10	2.30
21	3.10	4.15	3.20	4.40	2.90	5.30	15.50	5.70	2.60	2.60	2.10	2.20
22	2.90	3.85	3.10	3.75	2.90	5.60	12.30	5.75	-------	2.50	2.10	2.20
23	2.80	3.70	3.00	3.50	2.90	6.40	9.60	5.00	2.60	2.50	2.10	2.20
24	2.80	3.50	3.00	3.50	2.80	6.20	7.30	4.80	2.70	2.50	2.10	2.20
25	2.80	3.50	3.00	3.30	2.80	6.40	6.95	5.20	2.80	2.40	2.10	2.20
26	2.80	3.50	3.00	3.30	4.10	8.20	7.25	4.80	2.70	-------	2.10	2.20
27	2.80	3.30	3.00	3.80	9.10	7.10	6.15	5.15	2.70	-------	2.10	2.20
28	2.90	3.30	3.00	3.80	7.75	5.90	5.90	6.75	2.70	2.40	2.10	2.20
29	2.90	3.30	2.90	3.80	-------	5.60	6.05	5.50	3.50	2.40	2.10	2.20
30	2.90	4.40	2.90	3.50	-------	5.20	5.40	4.90	3.10	2.50	2.10	2.20
31	2.90	-------	2.90	3.40	-------	5.00	-------	4.50	-------	2.50	2.10	-------

Daily mean gage height, in feet, of Chemung River at Corning, N. Y., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	2.2	2.8	3.1	3.8	3.85	5.3	4.1	3.2	3.2	2.9	2.1	2.0
2	3.0	2.8	3.1	4.85	3.8	5.4	4.4	3.3	2.9	3.0	2.0	2.0
3	6.8	3.0	3.1	8.1	3.8	5.0	4.7	3.3	2.8	3.1	2.0	2.1
4	5.8	3.2	3.0	6.25	3.9	4.7	4.4	3.2	2.7	2.9	2.0	2.0
5	4.8	3.1	3.0	5.2	3.9	4.4	4.1	3.1	2.6	2.7	2.0	2.0
6	3.9	3.0	3.0	4.75	3.75	4.25	4.35	3.0	2.6	2.9	2.0	2.0
7	3.4	2.9	2.9	4.8	3.6	5.4	7.1	2.9	2.5	3.7	2.0	2.0
8	3.1	2.8	2.9	6.35	3.7	8.8	6.9	3.1	2.5	3.05	2.0	2.0
9	3.1	2.8	2.95	7.3	3.6	6.9	5.9	3.1	2.5	2.75	2.1	2.0
10	2.9	2.7	3.15	6.3	3.6	6.3	5.5	2.9	3.0	2.6	2.0	2.0
11	2.7	2.7	3.05	4.9	3.55	7.4	5.1	2.8	4.5	2.7	2.0	2.0
12	2.6	2.7	3.0	4.9	3.4	7.5	4.9	2.7	3.5	2.6	1.9	2.0
13	2.6	2.7	3.5	7.1	3.55	6.3	4.9	2.6	3.1	2.6	1.9	2.0
14	2.6	2.7	5.3	8.3	3.55	7.4	4.9	2.8	2.9	2.6	2.0	2.0
15	2.5	3.0	5.0	8.4	3.45	5.8	4.5	3.5	2.8	2.7	2.0	2.1
16	2.5	3.1	4.5	6.6	3.35	5.5	4.2	4.4	2.7	2.5	2.1	2.1
17	2.5	4.8	4.45	5.3	3.3	6.2	4.3	3.95	3.75	2.5	2.1	2.1
18	2.5	6.3	5.9	5.2	3.35	8.8	4.8	3.75	5.4	2.3	2.1	2.1
19	2.5	6.45	6.05	6.65	3.8	8.5	4.8	3.95	5.35	2.3	2.0	2.1
20	**2.4**	**5.35**	**6.05**	**6.25**	5.65	**6.6**	**4.5**	**7.0**	**4.2**	**2.2**	**2.0**	**2.1**
21	2.4	4.65	4.5	6.1	5.5	6.05	4.4	4.9	3.8	2.2	2.0	2.1
22	3.1	4.2	4.1	5.65	5.6	5.1	4.3	4.3	3.6	2.2	2.0	2.0
23	7.25	3.9	4.4	5.0	5.5	4.75	4.1	3.9	3.2	2.3	2.0	2.0
24	4.65	3.7	5.2	4.8	5.4	4.6	4.0	3.5	3.0	2.3	2.0	2.0
25	4.1	3.5	5.6	4.65	5.6	4.6	3.9	3.5	2.9	2.2	2.0	2.0
26	3.65	3.3	6.5	4.45	9.6	5.85	3.8	3.4	3.2	2.1	2.0	2.1
27	3.3	3.2	6.0	4.35	9.45	5.35	3.6	3.2	4.9	2.1	2.0	2.2
28	3.0	3.1	5.7	4.5	5.4	4.75	3.5	3.1	3.5	2.1	2.0	2.2
29	3.0	3.0	4.5	4.25	-------	4.45	3.4	4.0	3.2	2.1	-------	2.2
30	3.0	3.0	3.6	4.05	-------	4.25	3.3	3.7	2.9	2.1	-------	2.2
31	2.9	-------	3.5	3.95	-------	4.2	-------	3.4	-------	2.1	2.0	-------
1930–31												
1	2.2	2.0	2.0	2.0	2.7	3.5	5.7	4.0	4.4	2.3	2.6	2.2
2	2.0	2.0	2.0	2.0	2.6	3.6	7.0	3.8	4.0	2.3	2.6	2.2
3	2.0	2.0	2.3	2.0	2.5	3.3	7.0	3.8	3.7	3.8	3.7	2.9
4	2.0	2.0	2.1	2.0	2.5	3.1	7.5	3.8	3.5	-------	2.9	3.2
5	1.9	2.0	2.0	2.0	2.5	3.0	7.1	3.6	3.3	-------	2.8	2.9
6	1.9	2.0	2.1	2.0	2.5	2.9	6.9	3.4	3.2	3.1	2.6	2.7
7	1.9	2.0	2.2	2.0	2.6	2.9	6.4	3.3	5.6	2.7	2.5	2.6
8	1.9	2.0	2.4	2.0	2.5	2.9	6.0	3.2	7.1	2.7	2.4	2.4
9	1.9	2.0	2.3	2.0	2.5	3.0	6.7	4.5	5.5	3.3	2.8	2.3
10	1.9	2.0	2.3	2.0	2.5	3.0	7.4	4.2	4.8	2.9	4.7	2.3
11	1.9	2.0	2.2	2.0	2.5	2.8	7.8	4.5	4.4	3.4	3.6	2.2
12	1.9	2.0	2.2	2.0	2.5	2.7	6.1	4.6	4.0	3.1	3.2	2.2
13	1.9	2.0	2.2	2.0	2.5	2.6	5.5	6.2	3.7	2.9	3.1	2.2
14	1.9	2.0	2.1	2.0	2.5	2.6	5.0	6.9	3.5	2.8	2.9	2.1
15	1.9	2.0	2.0	2.0	2.5	2.6	4.6	6.2	3.3	2.8	2.8	2.2
16	1.9	2.0	2.0	2.0	2.9	2.7	4.3	5.4	3.6	2.6	2.7	2.6
17	1.9	2.0	2.0	2.0	2.9	2.7	4.0	6.0	3.4	2.5	2.6	2.7
18	1.9	2.0	2.0	2.0	3.6	3.0	3.8	5.3	3.1	2.5	2.5	2.7
19	1.9	2.0	2.0	2.0	4.0	3.3	3.6	4.6	3.0	2.5	2.4	2.6
20	1.9	2.0	2.0	2.0	3.5	3.2	3.4	4.3	2.9	2.6	2.4	2.6
21	1.9	2.0	2.0	2.0	3.1	3.9	3.3	4.7	2.8	5.3	2.3	2.5
22	1.9	2.0	2.0	2.0	3.0	4.6	3.2	4.8	2.8	5.7	2.3	2.6
23	1.9	2.0	2.0	2.0	2.9	5.5	3.2	5.7	2.7	4.2	2.3	2.4
24	1.9	2.0	2.0	2.0	2.9	6.4	3.9	9.0	2.6	3.5	2.3	2.4
25	2.0	2.0	2.0	2.0	2.9	6.9	3.6	7.4	2.6	3.2	2.2	2.3
26	2.0	2.0	2.0	2.2	3.0	7.0	3.7	7.6	2.6	3.1	2.2	2.3
27	2.0	2.0	2.0	2.3	3.1	6.4	3.9	6.1	2.5	2.9	2.2	2.3
28	2.0	2.0	2.0	2.9	3.2	7.6	3.9	5.3	2.5	2.7	2.4	2.3
29	2.0	1.9	2.0	2.9	-------	9.0	3.8	4.7	2.4	2.7	2.5	2.3
30	2.1	1.9	2.0	2.9	-------	7.2	4.4	4.4	2.4	2.7	2.4	2.2
31	2.1	-------	2.0	2.9	-------	6.0	-------	4.6	-------	2.6	2.3	-------

Daily mean gage height, in feet, of Chemung River at Corning, N. Y., 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	2.2	2.0	2.2	3.0	4.0	3.4	12.5	3.5	3.0	2.3	2.1	2.1
2	2.2	2.0	2.4	3.2	3.8	3.4	8.7	3.5	3.0	2.4	2.1	2.0
3	2.2	2.0	2.3	3.3	3.8	3.4	10.0	3.4	2.9	-------	2.1	2.0
4	2.1	2.0	2.3	3.5	3.9	3.4	8.4	3.3	2.9	-------	2.2	-------
5	2.1	2.0	3.1	3.4	3.7	3.4	6.8	3.2	2.9	2.6	2.2	-------
6	2.1	2.0	2.3	3.6	3.5	3.4	6.5	3.2	2.9	2.7	2.1	2.0
7	2.1	2.0	2.9	8.1	3.5	3.5	5.9	3.3	2.9	2.6	2.1	2.0
8	2.1	2.0	2.7	5.8	3.5	2.9	5.5	6.8	2.8	2.6	2.1	2.0
9	2.1	2.0	2.7	4.9	4.0	3.3	6.3	9.5	2.7	2.8	2.1	2.0
10	2.1	2.0	2.7	4.6	3.7	3.5	6.8	8.5	2.6	2.7	2.1	2.0
11	2.1	2.0	2.9	4.1	9.7	3.4	9.1	8.7	2.6	2.6	2.1	2.0
12	2.1	2.0	3.9	3.8	9.0	3.3	9.2	9.7	2.5	2.6	2.1	2.0
13	2.0	2.0	3.5	3.7	6.7	3.2	7.0	7.4	2.5	2.6	2.1	2.0
14	2.1	2.0	5.4	4.4	5.5	3.1	6.3	6.2	2.6	2.4	2.1	2.0
15	2.1	2.0	6.5	4.0	4.8	3.0	5.8	5.8	2.6	2.3	2.1	2.0
16	2.1	2.2	4.7	7.2	4.5	3.3	5.0	5.3	2.6	2.3	2.0	2.0
17	2.1	2.4	4.2	5.2	4.3	3.1	4.9	4.9	2.5	2.2	2.0	2.0
18	2.1	2.3	3.7	5.6	4.3	3.0	4.8	4.4	2.6	2.2	2.1	2.0
19	2.1	2.2	3.5	5.2	3.7	3.0	4.5	4.1	2.5	2.2	2.2	2.0
20	2.1	2.2	3.5	4.8	3.8	3.3	4.3	4.1	2.5	2.3	2.1	2.9
21	2.1	2.2	3.4	4.4	3.7	3.5	4.2	3.8	2.4	2.2	2.1	2.0
22	2.0	2.2	3.3	6.1	3.5	3.3	4.0	3.6	2.4	2.2	2.1	2.0
23	2.0	2.3	5.1	5.7	3.3	3.8	3.8	3.5	2.4	2.2	2.1	2.0
24	2.0	2.3	4.4	5.5	3.0	4.3	3.7	3.4	2.3	2.2	2.1	1.9
25	2.0	2.2	4.0	5.2	3.1	4.3	3.6	3.3	2.3	2.2	2.0	2.0
26	2.0	2.2	4.4	4.6	3.2	5.7	3.6	3.2	2.3	2.2	2.0	2.0
27	2.0	2.2	3.8	4.6	3.4	7.4	3.8	3.5	2.3	2.2	2.0	2.0
28	2.0	2.2	3.4	4.8	3.5	7.0	3.7	3.5	2.4	2.2	2.0	2.0
29	2.0	2.2	3.3	4.3	3.5	5.4	3.5	3.3	2.5	2.2	2.0	2.0
30	2.0	2.2	3.6	4.5	-------	5.7	3.5	3.2	2.4	2.2	2.0	2.0
31	2.0	-------	3.0	4.3	-------	10.0	-------	3.1	-------	2.2	2.1	-------

SUSQUEHANNA BASIN—STATION NO. 9

TOWANDA CREEK NEAR MONROETON

LOCATION.—Chain gage at highway bridge 1¼ miles above mouth of South Branch of Towanda Creek and 1½ miles southwest of Monroeton, Bradford County. Zero of gage is 774.14 above mean sea level.

DRAINAGE AREA.—218 square miles.

RECORDS AVAILABLE.—January, 1914, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929 (estimated), 11,900 second-feet May 2 (gage height, 7.6 feet from graph based on gage readings); minimum, 5.6 second-feet Sept. 4, 6 (gage height, 1.90 feet).

Maximum discharge during year ending Sept. 30, 1930, 7,100 second-feet Mar. 8 (gage height, 6.40 feet from graph based on gage readings); minimum, 7.1 second-feet Sept. 6 (gage height, 1.78 feet).

Maximum discharge during year ending Sept. 30, 1931, 4,310 second-feet Apr. 1 (gage height, 5.52 feet from graph based on gage readings); minimum, 7.1 second-feet Sept. 14 (gage height, 1.78 feet).

Maximum discharge during year ending Sept. 30, 1932, 4,880 second-feet Mar. 31 (gage height, 5.70 feet); minimum, 0.7 second-foot Sept. 15, 17, 21, 22 (gage height, 1.38 feet).

1914-1932: Maximum discharge (estimated), 22,000 second-feet Nov. 16, 1926 (gage height, 11.0 feet from graph based on gage readings); minimum, that of Sept. 15, 17, 21, 22, 1932.

REMARKS.—Records good except those above 3,000 second-feet, and those for periods of ice effect, which are poor.

Daily discharge, in second-feet, of Towanda Creek near Monroeton, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	21	22	156	36	45	377	177	361	231	27	8.1	6.0
2	21	27	106	40	40	424	147	885	192	28	7.7	5.9
3	19	23	77	64	40	304	116	5,130	152	27	8.1	5.8
4	18	28	72	32	45	304	112	1,280	130	22	9.4	5.6
5	18	28	70	32	45	517	236	1,010	109	20	10	5.8
6	22	28	60	134	55	392	1,230	775	94	22	9.4	5.6
7	23	27	42	317	110	474	628	830	100	20	8.6	5.9
8	21	28	44	265	254	242	449	544	85	19	8.1	5.9
9	21	32	28	231	254	203	526	424	67	17	7.5	7.7
10	19	30	33	231	242	198	1,080	346	62	22	7.2	9.0
11	19	29	40	166	166	134	885	291	57	24	7.0	8.3
12	15	29	30	121	138	408	1,430	265	49	21	7.0	7.7
13	20	30	36	100	110	675	775	310	44	17	6.8	7.2
14	17	30	40	88	95	2,760	562	377	42	17	7.2	11
15	19	28	40	70	95	2,450	490	441	38	15	25	12
16	19	30	38	55	95	2,350	1,670	317	29	12	14	11
17	19	25	36	55	110	1,140	1,430	254	27	12	12	12
18	19	27	64	80	166	628	1,280	214	25	13	9.4	11
19	25	29	67	392	324	465	1,750	675	22	38	8.8	9.8
20	25	116	57	236	177	392	1,670	725	13	29	7.9	9.8
21	23	74	50	109	130	317	3,320	948	22	24	7.5	8.8
22	23	62	36	95	95	298	2,650	775	18	20	7.2	8.3
23	22	49	44	90	80	441	1,590	562	18	13	7.2	8.1
24	24	44	36	80	70	377	1,080	408	55	12	7.0	8.1
25	28	38	38	75	80	317	830	608	40	12	6.6	8.1
26	30	40	40	70	2,100	369	1,280	449	35	12	6.3	7.9
27	29	38	38	60	2,250	346	725	408	32	11	6.3	7.9
28	30	35	36	55	775	278	526	1,010	29	11	6.2	8.1
29	30	35	30	55	-------	231	775	562	55	9.8	6.0	7.9
30	25	33	49	55	-------	208	449	408	35	9.0	6.2	8.8
31	25	-------	32	55	-------	187	-------	304	-------	8.3	6.3	-------
1929-30												
1	9.5	34	65	142	80	387	223	82	96	106	10	7.8
2	185	34	61	300	79	742	211	116	70	133	9.9	7.9
3	903	50	60	612	81	372	175	120	55	89	9.7	7.9
4	341	77	59	372	88	286	155	89	41	60	9.6	7.7
5	120	69	60	260	88	272	129	74	36	46	9.2	7.4
6	89	66	64	200	78	190	308	67	35	43	9.0	7.3
7	66	59	75	206	74	250	2,740	80	70	39	8.8	7.4
8	52	52	99	341	70	4,070	1,140	67	50	32	8.6	7.9
9	45	50	102	477	69	1,310	690	60	43	27	8.4	7.9
10	39	48	82	452	68	794	485	50	372	164	8.6	7.7
11	34	45	74	313	68	348	387	43	293	77	8.3	7.7
12	34	45	99	254	70	794	313	36	129	55	8.2	7.5
13	30	45	169	794	72	520	349	36	82	41	7.9	7.4
14	29	46	190	903	65	443	403	74	60	82	7.9	8.7
15	29	125	300	794	62	313	279	751	46	62	8.6	14
16	28	155	235	502	60	266	327	468	36	38	8.8	77
17	28	213	272	349	60	260	690	266	35	29	8.8	21
18	27	1,980	794	250	65	300	642	201	341	23	8.7	14
19	27	1,080	1,020	215	80	671	494	190	435	20	8.4	11
20	22	593	1,410	190	150	403	372	403	195	18	8.4	11
21	21	395	593	175	500	327	300	272	125	16	8.3	10
22	27	286	418	160	452	235	260	201	89	17	8.2	9.7
23	66	211	250	140	349	201	211	146	62	25	8.8	9.5
24	66	164	170	120	364	175	190	229	53	18	9.4	9.2
25	50	155	155	108	742	463	169	612	85	14	9.0	9.6
26	45	125	160	99	1,410	1,640	133	320	195	13	8.6	11
27	41	116	168	93	848	794	113	223	921	12	8.3	30
28	37	125	180	92	443	460	99	190	349	12	8.2	15
29	33	106	169	91	-------	364	85	206	185	11	7.9	12
30	32	77	159	89	-------	313	77	150	116	11	7.8	11
31	32	-------	146	83	-------	260	-------	120	-------	11	7.7	-------

Daily discharge, in second-feet, of Towanda Creek near Monroeton, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	11	10	16	11	12	36	900	164	190	11	17	8.4
2	10	10	24	11	12	35	2,420	133	133	11	31	8.6
3	10	10	15	11	11	34	1,410	159	96	62	25	9.9
4	10	9.9	14	11	11	33	2,060	125	74	99	18	11
5	9.4	10	12	10	11	32	1,140	99	60	96	15	10
6	9.5	10	31	14	11	50	903	85	50	48	12	9.6
7	9.2	9.9	76	24	10	40	903	77	155	85	11	8.7
8	9.2	9.7	64	14	10	116	1,310	584	334	57	11	8.4
9	9.5	9.7	52	14	10	313	3,050	485	138	35	15	8.2
10	9.5	9.7	36	13	10	164	2,740	334	155	57	50	7.9
11	9.2	9.5	26	13	10	116	2,150	260	125	248	24	7.7
12	9.2	10	26	12	10	96	1,140	223	89	77	16	7.5
13	9.2	9.9	25	12	12	89	742	327	67	48	15	7.8
14	9.0	11	18	12	60	67	603	1,730	53	32	13	7.4
15	9.4	10	16	12	35	113	435	937	50	27	12	7.9
16	9.0	10	14	12	33	129	313	562	106	22	12	9.0
17	9.2	11	13	11	45	142	260	911	72	10	11	9.9
18	9.5	11	13	11	320	142	229	468	50	15	10	12
19	9.5	11	13	11	200	146	190	341	36	16	10	11
20	9.5	11	13	11	60	129	133	362	29	42	10	9.7
21	9.5	10	12	11	35	266	113	1,540	30	990	9.7	9.5
22	10	10	12	11	40	387	102	742	25	914	9.5	9.2
23	9.2	10	12	10	30	426	211	1,460	22	254	9.1	8.8
24	10	10	12	10	30	548	211	2,260	44	106	8.8	8.6
25	9.7	11	12	10	30	1,200	164	1,410	27	67	8.7	9.0
26	9.7	10	12	9	30	1,020	180	1,290	22	41	9.0	8.7
27	10	12	12	10	30	1,020	242	690	16	32	9.5	8.7
28	9.7	9.7	11	14	40	1,520	190	435	14	29	9.5	8.8
29	9.7	9.6	11	13	-------	2,820	235	286	12	26	9.1	8.8
30	9.7	10	11	12	-------	1,350	223	223	12	23	8.8	8.4
31	10	-------	11	12	-------	794	-------	293	-------	20	8.7	-------
1931-32												
1	8.2	9.2	11	11	372	52	3,530	88	46	19	11	3.1
2	8.2	9.4	12	21	235	53	2,390	150	50	52	10	3.1
3	7.9	9.2	11	50	175	50	3,780	101	48	36	10	2.4
4	7.7	9.2	11	48	180	55	1,560	88	84	32	11	2.3
5	7.7	9.2	11	41	146	48	962	79	65	52	11	4.0
6	7.7	9.2	10	106	138	53	848	69	50	38	9.2	4.0
7	7.7	9.1	11	1,020	106	60	651	93	42	31	8.4	3.1
8	7.8	9.2	9.7	410	133	50	593	221	39	81	7.3	2.6
9	8.0	9.0	9.7	201	169	42	848	364	34	46	5.8	2.1
10	7.9	9.1	10	142	113	37	1,410	287	30	31	5.8	1.7
11	7.9	9.0	11	102	2,700	34	1,480	671	28	27	8.4	1.3
12	7.9	9.4	12	80	1,270	33	962	742	30	21	8.4	1.1
13	7.9	9.6	21	102	661	32	651	485	34	19	7.3	.9
14	7.9	9.5	57	146	387	30	494	334	40	17	6.2	.9
15	8.2	9.6	60	235	266	27	372	690	40	16	4.4	.9
16	8.0	9.7	30	387	200	25	273	372	34	14	3.9	.9
17	8.3	9.6	16	235	155	27	232	520	52	12	3.5	.9
18	8.4	9.7	16	235	140	29	195	300	42	12	4.1	1.0
19	8.2	9.7	15	175	120	47	158	221	32	11	20	.9
20	8.2	9.7	14	125	100	110	134	166	28	11	14	.9
21	8.0	9.7	14	102	90	180	117	142	26	11	10	.7
22	7.9	9.7	15	313	75	356	107	134	24	20	8.0	.8
23	7.9	9.7	22	248	65	334	95	93	20	72	6.6	1.2
24	7.9	9.7	24	485	50	293	81	77	18	31	4.8	2.0
25	7.9	9.9	25	286	40	242	86	69	17	23	4.1	2.0
26	8.2	9.9	15	211	40	742	88	65	18	17	3.6	2.1
27	8.2	9.7	10	223	43	1,080	77	86	17	20	3.2	2.3
28	8.2	9.7	9.5	201	55	622	69	98	18	16	2.9	5.1
29	8.7	9.9	9.5	150	53	651	58	72	20	14	2.6	9.6
30	9.1	9.9	9.5	903	-------	742	60	62	16	14	2.5	7.3
31	9.6	-------	9.5	435	-------	3,910	-------	51	-------	12	2.9	-------

Note.—Discharge estimated for periods of ice effect, Dec. 21, 1928, Jan. 15-18, Jan. 22 to Feb. 7, Feb. 13-17, 21-25, Dec. 1-7, 23-27, 1929, Jan. 6, Jan. 18 to Feb. 21, Dec. 15-31, 1930, Jan. 1 to Mar. 7, Dec. 26-31, 1931, Jan. 1, Feb. 16-27, Mar. 8-20, 1932.

Monthly discharge, in second-feet, of Towanda Creek near Monroeton, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	30	15	22.2	0.102	0.12
November	116	22	35.5	.163	.18
December	156	28	50.5	.232	.27
January	392	32	114	.523	.60
February	2,250	40	292	1.34	1.40
March	2,760	134	587	2.69	3.10
April	3,320	112	997	4.57	5.10
May	5,130	214	706	3.24	3.74
June	231	13	63.6	.292	.33
July	38	8.3	18.2	.083	.10
August	25	6.0	8.45	.039	.04
September	12	5.6	8.17	.037	.04
The year	5,130	5.6	241	1.11	15.02
1929-30					
October	903	9.5	83.5	.383	.44
November	1,980	34	221	1.01	1.13
December	1,410	59	253	1.16	1.34
January	903	83	296	1.36	1.57
February	1,410	60	237	1.09	1.14
March	4,070	175	604	2.77	3.19
April	2,740	77	405	1.86	2.08
May	751	36	192	.881	1.02
June	921	35	157	.720	.80
July	164	11	43.4	.199	.23
August	10	7.7	8.65	.040	.05
September	77	7.3	12.8	.059	.07
The year	4,070	7.3	209	.959	13.06
1930-31					
October	11	9.0	9.59	.044	.05
November	12	9.5	10.2	.047	.05
December	76	11	20.8	.095	.11
January	24	9.0	12.0	.055	.06
February	320	10	41.4	.190	.20
March	2,820	32	431	1.98	2.28
April	3,050	102	830	3.81	4.25
May	2,260	77	613	2.81	3.24
June	334	12	76.2	.350	.39
July	990	11	116	.532	.61
August	50	8.7	14.1	.065	.07
September	12	7.4	8.97	.041	.05
The year	3,050	7.4	183	.839	11.36
1931-32					
October	9.6	7.7	8.11	.037	.04
November	9.9	9.0	9.50	.044	.05
December	60	9.5	16.8	.077	.09
January	1,020	11	240	1.10	1.27
February	2,700	40	285	1.31	1.41
March	3,910	25	324	1.49	1.72
April	3,780	58	745	3.42	3.82
May	742	51	225	1.03	1.19
June	84	16	34.7	.159	.18
July	81	11	26.7	.122	.14
August	20	2.5	7.13	.033	.04
September	9.6	.7	2.37	.011	.01
The year	3,910	.7	159	.729	9.96

TUNKHANNOCK CREEK AT DIXON

LOCATION.—Chain gage at highway bridge at Dixon, Wyoming County, 3 miles (revised) northeast of Tunkhannock.

DRAINAGE AREA.—393 square miles.

RECORDS AVAILABLE.—January, 1914, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 5,970 second-feet Mar. 14 (gage height, 7.2 feet from graph based on gage readings); minimum, 18 second-feet Aug. 24, Sept. 6 (gage height, 0.95 foot).

Maximum discharge during year ending Sept. 30, 1930, 5,750 second-feet Dec. 30 (gage height, 7.0 feet from graph based on gage readings); minimum, 9.0 second-feet Aug. 12 (gage height, 0.73 foot).

Maximum discharge during year ending Sept. 30, 1931, 5,590 second-feet July 10 (gage height, 6.9 feet from graph based on gage readings); minimum, 13 second-feet Oct. 11, 13-15 (gage height, 0.92 foot).

Maximum discharge during year ending Sept. 30 1932 (estimated), 10,400 second-feet Feb. 10 (gage height, 9.8 feet from graph based on gage readings); minimum, 14 second-feet Sept. 22, 23 (gage height, 0.87 foot).

1914-1932: Maximum discharge (estimated), 19,000 second-feet Sept. 30, 1924 (gage height, 13.1 feet); minimum, that of Aug. 12, 1930.

REMARKS.—Records fair except those for periods of ice effect, which are extremely poor. Some regulation from storage in natural and artificial lakes and from operations at gristmills upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	75	57	990	85	65	1,110	630	990	510	113	52	24
2	69	57	1,030	96	81	950	540	840	422	295	35	22
3	69	62	320	113	85	770	665	3,570	345	177	28	21
4	62	65	242	90	81	735	1,150	2,010	272	250	25	21
5	57	81	208	113	81	1,500	1,070	1,410	250	200	49	21
6	57	69	200	[a]40	85	2,120	1,600	1,320	229	85	43	21
7	[a]65	62	177	207	90	[a]1,700	1,070	1,150	208	75	39	85
8	75	52	130	242	110	1,030	910	1,110	188	62	37	135
9	62	52	103	208	600	630	840	910	152	47	35	69
10	47	49	90	169	770	395	910	735	135	47	27	52
11	43	47	122	135	480	570	1,110	630	122	49	22	39
12	35	49	90	120	370	1,030	1,190	1,320	122	49	27	30
13	32	62	85	110	272	1,900	1,320	630	122	43	32	32
14	47	62	85	95	229	5,010	1,150	570	122	39	69	37
15	39	69	85	96	177	3,850	990	1,150	85	39	370	152
16	49	62	103	90	169	2,800	1,700	700	65	37	510	81
17	47	65	135	81	169	1,900	2,560	630	43	37	122	81
18	49	65	229	108	169	1,320	2,120	510	21	57	65	85
19	62	85	229	570	229	1,070	1,600	570	39	665	62	43
20	52	122	177	[a]380	250	990	1,700	1,070	122	345	47	47
21	57	142	122	242	208	910	4,560	1,320	272	122	32	37
22	57	108	85	208	208	910	3,570	1,500	57	90	30	37
23	52	90	75	188	177	1,110	2,120	990	49	85	22	37
24	85	85	65	150	169	1,110	2,010	840	75	81	21	43
25	108	85	65	140	152	875	1,900	950	188	65	27	39
26	90	81	65	130	840	1,230	2,450	910	320	85	28	35
27	85	65	65	120	3,850	1,070	2,010	700	188	65	27	28
28	69	69	65	108	2,340	[a]850	1,410	665	229	49	21	24
29	65	75	96	[a]95	-------	735	1,320	1,410	295	49	22	97
30	62	108	85	90	-------	630	1,150	805	200	52	27	28
31	62	-------	103	85	-------	600	-------	600	-------	49	24	-------

[a] Estimated.

Daily discharge, in second-feet, of Tunkhannock Creek at Dixon, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	62	67	202	500	195	1,080	391	199	231	248	18	18
2	2,560	79	195	862	199	1,040	353	284	231	206	14	43
3	2,040	147	172	1,420	206	888	318	266	231	169	14	55
4	1,200	380	162	1,120	214	677	280	210	191	136	14	64
5	677	280	156	1,000	187	518	280	156	146	109	14	40
6	430	235	159	850	172	408	252	172	152	75	14	30
7	298	210	180	612	165	630	1,330	183	159	75	14	26
8	202	165	313	778	162	1,920	1,200	191	180	65	12	26
9	156	139	436	1,000	156	1,510	888	191	206	57	11	23
10	139	128	348	814	149	1,330	744	139	488	53	14	26
11	111	133	266	549	159	850	612	87	767	44	11	19
12	99	133	202	677	183	962	580	58	370	49	9.0	14
13	92	111	564	1,880	214	1,040	612	43	261	71	11	21
14	106	106	1,420	2,600	257	778	644	87	227	122	9.7	36
15	92	265	1,160	1,910	284	710	488	191	195	270	9.7	315
16	83	580	888	1,420	199	644	488	252	136	117	12	1,040
17	77	459	1,040	814	195	612	580	191	122	85	14	732
18	77	1,230	1,910	644	214	710	710	191	136	60	14	313
19	73	1,760	2,950	549	284	1,000	644	191	227	57	16	202
20	73	1,040	4,120	488	477	612	549	375	180	44	19	176
21	60	814	1,740	453	814	580	430	313	152	29	23	133
22	73	710	1,330	402	1,200	448	386	210	97	24	19	69
23	149	549	888	375	1,120	408	323	156	75	49	19	75
24	149	436	710	343	1,120	380	275	162	75	94	34	62
25	111	391	612	313	1,240	391	252	323	85	75	73	75
26	79	364	549	293	2,340	710	284	488	94	57	47	162
27	64	338	518	270	1,910	644	284	402	235	57	47	122
28	64	298	488	248	1,160	494	275	459	218	49	18	104
29	64	252	500	227	-------	483	191	612	146	40	14	87
30	55	223	500	210	-------	460	172	430	75	34	14	67
31	55	-------	500	199	-------	436	-------	298	-------	23	18	-------
1930–31												
1	67	[a]45	67	50	60	391	1,410	231	1,240	65	142	83
2	46	47	53	49	59	261	744	202	710	57	231	89
3	43	43	50	50	58	172	1,040	244	612	39	308	122
4	43	47	58	54	57	94	2,130	323	612	53	202	83
5	42	43	77	56	57	60	2,130	218	488	77	180	77
6	39	47	67	65	57	44	1,160	165	391	83	142	60
7	29	50	77	125	59	29	1,330	149	289	57	104	49
8	25	43	87	80	65	536	1,330	198	842	42	77	42
9	20	43	87	70	68	1,000	1,080	431	442	100	65	39
10	19	36	83	63	64	644	962	888	430	3,580	77	42
11	14	39	77	60	62	448	925	1,530	375	3,940	57	44
12	17	39	77	63	68	323	925	2,480	252	1,910	65	39
13	14	50	70	100	80	308	1,000	2,020	402	1,080	39	35
14	13	53	64	61	73	338	1,080	2,360	231	962	29	32
15	14	67	61	57	74	488	1,000	1,610	128	962	49	32
16	17	58	59	64	94	677	644	1,080	128	580	71	29
17	17	50	58	70	125	677	391	2,340	348	448	77	57
18	20	64	58	67	172	888	308	1,420	252	359	73	83
19	25	67	58	63	475	888	308	1,120	191	448	65	73
20	29	50	61	105	534	814	252	1,000	83	375	53	65
21	29	43	62	70	391	925	227	2,470	128	348	44	94
22	29	39	58	64	402	962	218	1,520	142	430	53	94
23	23	36	53	61	471	1,160	391	1,720	142	338	83	65
24	28	36	57	58	518	1,510	580	2,850	142	308	71	57
25	36	50	56	58	612	2,460	430	2,480	117	359	53	71
26	29	43	55	65	778	2,280	488	2,130	83	430	71	57
27	33	39	54	69	402	1,000	413	1,240	104	252	84	57
28	[a]36	37	53	61	488	925	471	1,000	83	231	382	42
29	[a]34	40	53	59	-------	1,610	430	814	57	159	338	29
30	[a]40	60	53	65	-------	2,500	338	677	65	128	95	27
31	[a]42	-------	52	62	-------	3,240	-------	1,230	-------	117	65	-------

[a] Estimated.

Daily discharge, in second-feet, of Tunkhannock Creek at Dixon, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	45	40	42	210	580	448	6,050	252	174	116	66	26
2	33	49	36	375	480	391	3,790	612	231	796	66	27
3	31	40	36	275	460	518	4,670	413	231	413	75	33
4	31	40	49	210	459	850	3,020	348	210	375	121	39
5	33	42	42	210	459	677	2,130	298	174	580	100	33
6	31	40	49	523	459	744	1,710	275	143	471	75	30
7	31	42	83	3,020	518	612	1,330	576	116	612	77	27
8	33	42	56	1,200	488	459	1,240	1,860	93	459	81	27
9	33	[a]42	42	925	430	380	1,330	2,490	93	289	66	24
10	40	[a]42	42	814	8,070	330	1,810	1,510	73	210	59	21
11	33	[a]42	49	778	5,390	300	1,910	1,160	64	174	77	18
12	40	[a]42	56	677	3,130	280	1,710	1,160	70	143	81	18
13	31	[a]44	73	518	1,200	270	1,330	925	210	116	56	19
14	31	[a]45	174	549	1,200	270	1,120	710	192	93	48	19
15	26	42	375	488	1,000	260	962	612	181	91	42	18
16	31	36	430	677	744	260	850	549	580	83	35	18
17	33	49	252	518	549	270	710	483	644	93	34	16
18	33	49	218	1,330	402	300	644	348	612	104	56	16
19	31	42	218	710	348	370	580	298	375	87	79	16
20	31	40	192	488	330	644	518	252	298	73	114	16
21	33	42	130	677	320	549	448	231	231	59	71	15
22	31	40	130	1,080	340	850	413	210	888	75	59	14
23	31	49	158	1,330	360	1,080	375	174	402	270	56	14
24	26	36	231	1,120	330	1,120	323	143	275	130	42	16
25	31	33	210	1,080	320	1,000	252	143	203	83	38	18
26	31	49	140	1,200	380	1,200	308	261	210	64	33	18
27	31	42	115	1,330	510	2,020	298	488	210	91	30	21
28	33	42	105	1,330	549	1,820	298	506	210	188	49	38
29	36	42	110	1,200	580	1,330	275	[a]350	174	104	38	58
30	130	49	120	1,200	-------	1,580	231	231	143	81	23	46
31	64	-------	145	814	-------	3,310	-------	210	-------	64	33	-------

[a] Estimated.

Note.—Discharge affected by ice Dec. 13-15, 23-27, 1928, Jan. 12-14, 24-27, Feb. 8, Nov. 28, 29, Dec. 3-7, 24-28, 1929, Jan. 18 to Feb. 18, Nov. 27-30, Dec. 13-31, 1930, Jan. 1 to Feb. 16, Dec. 26-31, 1931, Feb. 2-3, 20-27, Mar. 9-19, 1932.

Monthly discharge, in second-feet, of Tunkhannock Creek at Dixon, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	108	32	60.8	0.155	0.18
November	142	47	73.4	.187	.21
December	1,030	65	185	.471	.54
January	570	81	155	.394	.45
February	3,850	65	447	1.14	1.19
March	5,010	395	1,340	3.41	3.93
April	4,560	540	1,580	4.02	4.48
May	3,570	510	1,050	2.67	3.08
June	510	21	182	.463	.52
July	665	37	113	.288	.33
August	510	21	64.1	.163	.19
September	152	21	47.8	.122	.14
The year	5,010	21	440	1.12	15.24
1929-30					
October	2,560	55	309	.786	.91
November	1,760	67	401	1.02	1.14
December	4,120	156	812	2.07	2.39
January	2,600	199	768	1.95	2.25
February	2,340	149	542	1.38	1.44
March	1,920	380	753	1.92	2.21
April	1,330	172	494	1.26	1.41
May	612	43	242	.616	.71
June	767	75	203	.517	.58
July	270	23	85.3	.217	.25
August	73	9.0	19.0	.048	.06
September	1,040	14	139	.354	.40
The year	4,120	9.0	397	1.01	13.75
1930-31					
October	67	13	29.4	.075	.09
November	67	36	46.8	.119	.13
December	87	50	63.1	.161	.19
January	125	49	66.6	.169	.19
February	778	57	229	.583	.61
March	3,240	29	892	2.27	2.62
April	2,130	218	804	2.05	2.29
May	2,850	202	1,230	3.13	3.61
June	1,240	57	317	.807	.90
July	3,940	39	591	1.50	1.73
August	382	29	111	.282	.33
September	122	27	58.9	.150	.17
The year	3,940	13	372	.947	12.86
1931-32					
October	130	26	36.7	.093	.11
November	49	33	42.5	.108	.12
December	430	36	133	.338	.39
January	3,020	210	866	2.20	2.54
February	8,070	320	1,050	2.67	2.88
March	3,310	260	790	2.01	2.32
April	6,050	231	1,350	3.44	3.84
May	2,490	143	583	1.48	1.71
June	888	64	257	.654	.73
July	796	59	212	.539	.62
August	121	23	60.6	.154	.18
September	58	14	24.0	.061	.07
The year	8,070	14	448	1.14	15.51

LACKAWANNA RIVER AT MOOSIC

LOCATION.—Chain gage at River Street Bridge, Moosic, Lackawanna County.

DRAINAGE AREA.—265 square miles.

RECORDS AVAILABLE.—August, 1913, to September, 1931.

REMARKS.—Gage readings at this station unreliable and daily discharge records not published after Sept. 30, 1928. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet		Feet	Second-feet
1929			1931			1932		
July 25	2.03	195	Oct. 1	1.86	135	Apr. 2	4.68	2,320
						July 18	2.08	168
1930			1932			July 18	2.05	170
Aug. 27	1.88	131	Mar. 5	2.52	408			

SUSQUEHANNA BASIN—STATION NO. 12

WAPWALLOPEN CREEK NEAR WAPWALLOPEN

LOCATION.—Water-stage recorder at Harts Bridge 2¼ miles (revised) southeast of Wapwallopen, Luzerne County, and 3½ miles upstream from mouth of creek. Chain gage at same site and datum used prior to Mar. 15, 1930.

DRAINAGE AREA.—46 square miles.

RECORDS AVAILABLE.—October, 1919, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 955 second-feet Feb. 27 (gage height, 5.3 feet from graph based on gage readings); minimum, 4.0 second-feet Oct. 13, Aug. 28, Sept. 1, 4, 5, 12, 29 (gage height, 0.82 foot).

Maximum discharge during year ending Sept. 30, 1930, 584 second-feet Apr. 17 (gage height, 4.25 feet); minimum, 3.7 second-feet Sept. 10 (gage height, 0.80 foot).

Maximum discharge during year ending Sept. 30, 1931, 295 second-feet May 13 (gage height, 3.15 feet); minimum, 3.4 second-feet Dec. 15 (gage height, 0.77 foot).

Maximum discharge during year ending Sept. 30, 1932, about 807 second-feet Apr. 1 (gage height, 4.88 feet); minimum, 4.0 second-feet Sept. 23 (gage height, 0.82 foot).

1919-1932: Maximum discharge (estimated), 2,240 second-feet Sept. 30, 1924 (gage height, 7.9 feet from graph based on gage readings); minimum, 3 second-feet Sept. 27, 28, Oct. 30, 31, 1922 (gage height, 0.76 foot).

REMARKS.—Records good except those above 450 second-feet, which are fair, and those for periods of ice effect, which are poor. Some regulation at low stages from operations at gristmills upstream. Water-stage recorder, well, and shelter, furnished by United States Engineers Office, Baltimore, Md.

Daily discharge, in second-feet, of Wapwallopen Creek near Wapwallopen, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	17	4.6	70	18	15	140	55	102	33	33	6.4	4.2
2	12	4.6	33	40	15	95	53	115	26	29	5.9	4.6
3	7.3	6.7	25	28	15	80	45	400	23	23	5.4	4.6
4	5.0	16	22	20	15	70	42	193	26	20	8.1	4.4
5	4.6	27	20	18	17	170	95	151	26	17	6.2	4.2
6	26	17	17	20	46	260	300	144	28	16	5.0	4.6
7	15	16	16	26	85	184	144	159	23	15	5.4	4.6
8	10	16	15	50	90	128	115	115	22	12	6.2	13
9	7.6	16	14	65	75	102	115	95	22	9.6	6.2	10
10	5.0	14	12	50	75	95	108	81	20	11	5.9	6.4
11	4.6	14	14	40	65	84	129	78	18	9.6	6.2	4.6
12	4.4	14	15	28	50	89	202	76	17	8.8	8.4	4.6
13	4.4	14	17	24	42	144	167	88	16	8.8	16	4.6
14	4.6	14	18	22	34	221	129	83	12	9.6	14	7.0
15	5.9	13	19	18	28	212	115	83	12	9.2	46	16
16	7.0	12	17	19	24	176	240	67	14	8.4	12	8.4
17	5.0	13	16	22	24	136	325	58	14	7.0	7.8	10
18	5.0	12	28	40	24	115	230	53	19	10	5.4	17
19	11	22	23	75	28	102	230	75	15	159	8.1	12
20	8.4	39	20	58	32	91	325	83	51	41	6.4	7.6
21	7.6	20	15	37	28	84	325	73	51	23	5.0	5.9
22	8.1	21	12	36	24	84	350	87	36	18	5.2	5.6
23	5.9	17	10	30	22	87	221	68	19	15	5.4	5.9
24	16	14	15	26	19	73	176	63	27	15	4.8	5.2
25	14	12	16	26	19	72	159	63	26	14	4.8	5.0
26	11	9.6	16	24	95	66	202	55	30	14	5.4	4.6
27	9.6	15	16	22	360	61	136	49	27	11	4.4	4.6
28	12	15	16	19	220	57	122	54	57	10	4.2	4.4
29	10	14	16	17	-------	53	136	49	79	9.6	4.4	4.0
30	8.8	32	16	15	-------	57	122	46	38	8.8	4.6	4.6
31	6.7	-------	14	15	-------	57	-------	40	-------	8.1	4.6	-------
1929-30												
1	4.2	35	42	49	42	86	60	52	32	34	7.7	4.9
2	238	30	38	82	45	80	59	110	29	128	7.4	4.9
3	315	35	35	126	51	76	55	86	26	46	7.4	5.1
4	120	59	34	89	51	74	53	62	22	29	7.1	5.7
5	74	46	33	81	46	75	48	53	22	22	6.4	4.8
6	52	42	34	87	42	79	55	48	20	21	6.1	4.6
7	41	34	43	79	40	75	370	45	26	20	7.1	4.4
8	36	36	39	85	36	202	191	43	20	17	5.7	5.1
9	29	33	35	85	34	151	144	40	32	29	5.9	4.8
10	25	29	32	73	34	136	122	37	116	215	5.7	4.3
11	19	31	29	58	35	130	106	34	118	77	5.5	4.8
12	22	30	28	67	37	122	98	33	55	55	5.3	4.9
13	20	27	32	81	46	119	111	29	43	40	5.7	4.6
14	19	29	45	83	50	114	118	32	36	41	5.9	7.7
15	14	51	83	71	46	80	93	63	30	36	6.6	14
16	20	43	67	66	39	75	137	48	26	28	8.8	9.1
17	14	33	69	64	35	73	212	36	28	22	5.9	9.9
18	13	105	85	60	40	79	187	32	40	20	6.8	7.7
19	16	148	103	58	50	152	156	34	28	16	5.9	4.9
20	14	116	101	55	75	94	133	39	22	14	6.1	5.9
21	13	92	82	53	100	82	119	32	20	15	5.5	5.1
22	50	79	75	51	96	73	114	28	16	13	5.7	5.1
23	114	67	68	50	88	68	94	26	15	22	7.7	5.3
24	52	61	63	49	83	67	83	30	15	14	10	4.6
25	46	50	58	47	91	67	74	94	15	12	8.4	4.9
26	37	51	57	46	130	111	67	51	15	11	5.7	5.5
27	32	53	58	45	109	89	61	41	42	9.5	6.4	5.3
28	29	51	61	50	103	77	57	43	21	11	5.5	4.6
29	23	48	66	46	-------	75	52	53	14	8.4	5.3	4.4
30	25	44	56	45	-------	74	50	41	14	9.9	5.1	4.4
31	29	-------	50	43	-------	66	-------	36	-------	7.7	4.9	-------

Daily discharge, in second-feet, of Wapwallopen Creek near Wapwallopen, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	4.8	5.7	6.5	6	4.5	105	134	45	59	12	9.9	5.5
2	5.9	4.8	5.0	5	4.5	97	191	42	50	12	7.7	7.5
3	4.8	5.9	5.0	4.5	5	72	126	44	44	10	9.5	31
4	4.9	4.9	5.0	5	5	62	156	40	40	14	14	14
5	4.4	7.1	5.5	7	5	50	116	36	36	15	11	9.1
6	4.8	5.5	6.0	15	5	34	101	23	40	14	7.4	6.6
7	4.3	5.7	6.8	12	4.5	32	114	36	48	23	8.4	7.1
8	5.1	5.7	6.8	8	4	112	116	124	92	26	8.0	5.3
9	5.5	4.8	5.9	6	4	122	119	92	50	21	10	6.1
10	4.9	5.3	5.9	5.5	4	65	93	71	47	73	26	5.5
11	4.8	5.3	5.7	5.5	4	56	94	74	41	94	20	7.1
12	4.3	4.9	5.9	5.5	5	45	82	97	32	40	16	6.6
13	4.9	4.9	5.9	6	11	53	70	171	29	25	16	5.5
14	4.8	5.3	4.4	5.5	10	32	64	182	26	22	9.9	5.3
15	4.9	4.9	4.0	5	10	34	58	136	24	19	10	10
16	5.3	4.9	3.5	4.5	20	34	52	112	32	17	8.8	32
17	4.9	5.9	3.5	4.5	70	35	49	107	46	16	9.1	17
18	5.5	8.8	4.0	5.5	200	39	46	89	26	20	8.4	17
19	4.8	5.9	4.5	8	150	44	42	77	21	27	7.7	10
20	6.1	4.8	5.0	12	123	39	40	71	17	18	9.5	8.4
21	4.9	4.9	4.5	10	119	43	36	180	16	17	8.8	9.9
22	5.7	5.7	4.0	7	111	51	36	123	16	32	7.7	8.0
23	5.3	4.9	4.0	5.5	106	50	110	128	14	21	6.4	8.4
24	5.5	4.9	4.0	4.5	106	55	80	160	14	17	6.8	8.0
25	5.7	5.7	4.0	4.5	103	91	59	136	12	15	6.6	7.4
26	4.6	5.7	4.5	5	106	110	67	142	12	11	6.6	12
27	5.3	4.8	10	6	100	80	71	109	76	14	7.1	10
28	5.5	4.5	15	5.5	89	73	56	91	27	9.9	7.1	10
29	5.5	4.0	12	5	------	203	55	79	18	9.9	6.8	8.0
30	5.3	4.5	9	4.5	------	130	50	70	14	14	6.1	7.1
31	5.7	------	7	4.5	------	103	------	65	------	10	6.4	------
1931-32												
1	6.9	10	13	13	132	42	553	74	30	18	8.2	7.2
2	5.8	12	11	27	102	37	317	86	28	25	7.0	5.6
3	6.3	8.8	8.4	29	69	35	249	55	29	27	7.2	6.3
4	5.8	9.3	8.6	28	67	35	176	46	28	24	7.9	4.9
5	6.4	6.8	15	24	75	33	142	43	27	29	6.5	5.1
6	5.8	9.3	9.1	84	66	32	125	41	26	20	6.3	5.7
7	6.2	7.0	17	131	58	37	109	54	22	18	8.7	4.9
8	6.4	7.1	15	80	62	34	96	68	18	15	14	4.9
9	8.2	6.8	8	68	56	30	103	82	19	14	8.0	4.9
10	6.6	7.0	9	58	53	28	118	64	17	11	7.4	5.1
11	6.4	7.6	11	49	93	27	119	68	16	12	7.2	4.9
12	7.2	7.5	13	43	83	27	101	83	18	12	8.0	4.6
13	6.1	7.1	17	57	67	27	89	70	42	11	7.2	4.8
14	6.1	7.6	27	56	60	26	82	62	33	11	4.9	4.6
15	6.3	6.8	21	48	55	25	76	58	30	9.8	6.4	4.6
16	7.4	7.1	15	45	51	25	68	54	77	9.7	5.1	4.8
17	6.6	6.9	12	42	49	27	65	49	327	7.7	4.9	4.8
18	6.4	7.2	11	55	48	29	60	44	118	9.4	9.4	4.8
19	6.5	7.3	12	47	45	38	57	41	77	8.6	11	4.9
20	6.3	6.9	8.8	40	43	86	53	38	64	8.6	8.1	5.1
21	6.9	6.8	12	39	40	75	50	36	53	9.2	5.5	4.9
22	6.4	6.0	13	48	38	89	47	35	46	14	6.7	5.1
23	6.0	7.7	21	49	37	97	44	33	36	26	5.1	4.3
24	6.7	6.0	19	62	36	88	41	30	31	12	4.9	4.4
25	6.1	6.4	21	49	35	83	40	29	28	11	5.2	4.3
26	5.9	6.6	15	44	37	97	39	20	25	8.8	6.0	4.2
27	6.4	6.4	10	60	45	130	39	41	33	8.8	4.9	4.6
28	6.5	7.4	9	57	52	120	35	91	66	9.8	5.1	6.8
29	9.4	6.1	8	49	47	132	33	48	32	8.9	4.8	8.0
30	14	10	8	96	------	143	31	37	24	7.9	5.8	7.7
31	15	------	9	87	------	570	------	33	------	6.0	5.9	------

Note.—Discharge estimated for periods of ice effect, Dec. 8, 9, 11, 13, 14, 21, 22, 24-29, 1928, Jan. 1-19, Jan. 22 to Mar. 5, Nov. 30 to Dec. 14, Dec. 22-27, 1929, Jan. 18 to Feb. 20, Mar. 2-6, Nov. 28 to Dec. 6, Dec. 15-31, 1930, Jan. 1 to Feb. 19, Dec. 8-10, 26-31, 1931, Jan. 1, Feb. 16-27, Mar. 8-19, 1932. Records based on chain gage readings for Oct. 1 to Dec. 31, 1929, Jan. 1 to Mar. 14, Aug. 30 to Sept. 4, 1930, Jan. 3, 4, 1931.

Monthly discharge, in second-feet, of Wapwallopen Creek near Wapwallopen, 1928-1932.

	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	26	4.4	9.02	0.196	0.23
November	39	4.6	15.8	.343	.38
December	70	10	19.1	.415	.48
January	75	15	30.6	.665	.77
February	360	15	56.6	1.23	1.28
March	260	53	111	2.41	2.78
April	325	42	170	3.70	4.13
May	400	40	95.0	2.07	2.39
June	79	12	27.6	.600	.67
July	159	7.0	19.5	.424	.49
August	46	4.2	7.86	.171	.20
September	17	4.0	6.74	.147	.16
The year	400	4.0	47.3	1.03	13.96
1929-30					
October	315	4.2	50.2	1.09	1.26
November	148	27	52.9	1.15	1.28
December	103	28	54.9	1.19	1.37
January	126	43	65.3	1.42	1.64
February	130	34	59.8	1.30	1.35
March	202	66	94.2	2.05	2.36
April	370	43	109	2.37	2.64
May	110	26	46.2	1.00	1.15
June	118	.14	31.9	.693	.77
July	215	7.7	33.7	.733	.85
August	10	4.9	6.43	.140	.16
September	14	4.3	5.71	.124	.14
The year	370	4.2	50.8	1.10	14.97
1930-31					
October	6.1	4.3	5.12	.111	.13
November	8.8	4.0	5.35	.116	.13
December	15	3.5	5.90	.128	.15
January	15	4.5	6.39	.139	.16
February	200	40	53.2	1.16	1.21
March	203	32	69.4	1.51	1.74
April	191	36	82.8	1.80	2.01
May	182	33	95.5	2.08	2.40
June	92	12	34.0	.739	.82
July	94	9.9	22.2	.483	.56
August	26	6.1	9.80	.213	.25
September	32	5.3	10.2	.222	.25
The year	203	3.5	33.2	.722	9.81
1931-32					
October	15	5.8	7.06	.153	.18
November	12	6.0	7.50	.163	.18
December	27	8	13.1	.285	.33
January	131	13	53.7	1.17	1.35
February	132	35	58.7	1.28	1.38
March	570	25	74.3	1.62	1.87
April	553	31	105	2.28	2.54
May	91	26	52.2	1.13	1.30
June	327	16	47.8	1.03	1.15
July	27	6.0	13.6	.293	.34
August	14	4.8	6.86	.149	.17
September	8.0	4.2	5.23	.114	.13
The year	570	4.2	36.9	.802	10.92

FISHING CREEK AT BLOOMSBURG

LOCATION.—Chain gage at Red Rock Bridge at Bloomsburg, Columbia County. Zero of gage is 462.56 feet above mean sea level.

DRAINAGE AREA.—355 square miles.

RECORDS AVAILABLE.—January, 1914, to September, 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 14.09 feet (from graph based on gage readings) May 3; minimum, 2.40 feet Sept. 26, 30.

Maximum stage during year ending Sept. 30, 1930, 9.17 feet (from graph based on gage readings) Nov. 18; minimum, 2.35 feet Sept. 23.

Maximum stage during year ending Sept, 30, 1931, 7.60 feet (from graph based on gage readings) Mar. 29; minimum, 2.19 feet Dec. 18.

Maximum stage during year ending Sept. 30, 1932, 10.00 feet Apr. 1; minimum, 2.28 feet Sept. 22.

1914-1932: Maximum discharge, about 23,000 second-feet Sept. 30, 1924 (gage height, 17.3 feet from graph based on gage readings); minimum, 4 second-feet Nov. 25, 26, 28, 1922 (gage height, 1.60 feet).

REMARKS.—Gage-height record poor. Gage not read June 17-22, 1930. Discharge not determined after Sept. 30, 1928, owing to regulation from operations at mills upstream and to unstable condition of bridge to which gage is attached. The following current-meter discharge measurements were made:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
		Second-feet			Second-feet			Second-feet
1928	Feet		1930	Feet		1932	Feet	
Oct. 4	2.66	80.2	Sept. 16	2.64	57.1	June 26	2.52	29.1
4	2.66	80.0	16	2.64	55.7	Sept. 12	2.50	22.6
1929			1932					
Aug. 15	2.68	43.2	Apr. 2	7.35	3,430			

Daily mean gage height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	2.82	2.75	3.90	2.76	3.21	4.53	3.92	4.42	3.62	3.22	2.54	2.50
2	2.76	2.72	3.73	3.30	3.11	4.34	3.84	4.54	3.65	3.12	2.52	2.47
3	2.71	2.73	3.51	3.10	3.15	4.02	3.70	11.81	3.43	3.02	2.54	2.50
4	2.66	2.73	3.37	2.93	3.05	4.04	3.65	8.04	3.35	2.98	2.71	2.48
5	2.65	2.75	3.31	2.90	2.94	5.54	4.49	6.46	3.28	2.93	2.72	2.46
6	2.68	2.79	3.14	3.60	3.06	6.54	7.22	5.79	3.34	2.91	2.70	2.45
7	2.70	2.77	3.07	3.90	4.20	5.32	6.36	5.66	3.23	2.82	2.52	2.47
8	2.71	2.77	3.05	3.54	4.35	4.89	5.25	5.12	3.24	2.76	2.58	2.67
9	2.62	2.75	3.04	3.57	3.99	4.06	4.86	4.83	3.14	2.82	2.51	2.60
10	2.66	2.72	2.90	3.50	4.00	3.59	5.15	4.58	3.12	2.86	2.49	2.55
11	2.65	2.73	2.87	3.70	3.43	3.74	4.82	4.36	3.06	2.82	2.52	2.51
12	2.59	2.74	2.87	3.46	3.24	4.09	5.69	4.30	3.02	2.76	2.54	2.50
13	2.57	2.74	2.81	3.44	3.05	4.59	5.42	4.59	3.00	2.74	2.63	2.50
14	2.57	2.74	2.81	3.59	3.01	6.24	5.34	4.62	2.97	2.53	2.59	2.66
15	2.57	2.72	2.87	3.50	3.01	7.54	5.04	4.46	2.94	2.50	2.69	2.58
16	2.57	2.74	2.83	3.54	2.93	7.04	5.84	4.29	2.92	2.52	2.60	2.51
17	2.56	2.71	2.87	3.37	3.01	6.19	7.54	4.14	3.04	2.73	2.52	2.55
18	2.61	2.74	3.19	3.40	2.96	5.25	6.84	4.03	2.82	2.54	2.51	2.65
19	2.64	2.79	3.23	4.45	3.43	4.76	5.86	4.32	2.89	2.60	2.52	2.62
20	2.66	3.00	3.03	4.05	2.97	4.57	5.56	4.72	3.02	2.58	2.50	2.50
21	2.63	2.88	2.91	3.50	2.97	4.34	5.74	4.64	3.23	2.54	2.48	2.49
22	2.65	2.82	2.97	3.49	2.97	4.29	6.02	4.78	3.00	2.51	2.48	2.47
23	2.61	2.91	2.87	3.39	2.89	4.82	6.14	4.47	2.93	2.54	2.52	2.46
24	2.99	2.87	2.77	3.30	2.97	4.80	4.96	4.34	3.42	2.54	2.58	2.66
25	2.99	2.85	2.87	3.33	2.86	4.52	4.84	4.28	3.26	2.51	2.56	2.46
26	2.83	2.83	2.89	3.37	6.55	4.42	6.29	4.06	3.19	2.50	2.51	2.42
27	2.83	2.77	2.85	3.19	7.65	4.26	5.42	3.89	3.06	2.68	2.50	2.50
28	2.74	2.79	2.77	3.20	5.49	4.06	5.16	4.04	3.04	2.70	2.50	2.55
29	2.81	2.71	2.77	3.26	-------	3.84	5.20	4.19	3.92	2.61	2.48	2.52
30	2.80	3.00	2.76	3.27	-------	3.79	4.68	3.98	3.46	2.59	2.49	2.48
31	2.75	-------	2.72	3.32	-------	3.94	-------	3.81	-------	2.60	2.48	-------

Daily mean gage height, in feet, of Fishing Creek at Bloomsburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	2.49	2.85	3.28	3.57	3.37	5.13	3.89	3.43	3.39	3.25	2.74	2.55
2	5.36	2.93	3.32	3.61	3.25	4.90	3.83	3.95	3.39	4.67	2.70	2.55
3	6.88	2.95	3.25	3.97	3.30	4.51	3.74	3.95	3.37	3.74	2.72	2.60
4	4.85	3.55	3.24	4.04	3.34	4.11	3.68	3.61	3.22	3.43	2.71	2.56
5	4.00	3.33	3.20	3.93	3.30	3.98	3.60	3.47	3.16	3.31	2.66	2.56
6	3.55	3.31	3.18	3.87	3.21	3.99	4.58	3.43	3.14	3.21	2.63	2.52
7	3.39	3.11	3.19	3.81	3.18	3.87	7.20	3.42	3.12	3.17	2.61	2.48
8	3.26	3.06	3.43	3.97	3.26	4.85	6.36	3.43	3.09	3.06	2.58	2.50
9	3.11	3.05	3.57	4.99	3.11	5.21	5.46	3.33	3.08	3.03	2.60	2.48
10	3.12	3.00	3.32	5.02	3.07	4.93	4.91	3.29	3.30	3.55	2.62	2.50
11	3.04	2.99	3.21	4.69	3.14	4.80	4.61	3.23	3.27	3.42	2.56	2.48
12	2.99	2.99	3.16	4.55	3.17	4.84	4.39	3.15	3.10	3.21	2.57	2.45
13	2.96	2.96	3.09	4.87	3.14	4.48	4.60	3.13	3.04	3.09	2.55	2.43
14	2.90	2.99	3.45	5.29	3.40	4.28	5.10	3.20	2.98	3.15	2.61	2.51
15	2.94	3.15	3.97	5.30	3.24	4.06	4.68	5.21	2.95	3.22	2.62	2.79
16	2.94	3.77	4.32	5.08	3.25	4.02	5.16	5.37	2.92	3.10	2.81	2.66
17	2.82	3.69	4.47	4.68	3.23	3.91	6.06	4.83	-------	2.99	2.69	2.56
18	2.76	6.92	5.12	4.34	3.11	3.86	6.34	4.41	-------	3.00	2.58	2.54
19	2.77	7.25	6.52	4.13	3.08	4.61	5.76	4.19	-------	2.91	2.61	2.52
20	2.74	5.62	6.05	3.98	3.55	4.38	5.14	4.29	-------	2.97	2.59	2.54
21	2.67	4.97	5.22	4.16	5.34	4.20	4.79	4.00	-------	2.88	2.58	2.52
22	2.80	4.43	4.65	4.04	4.76	4.02	4.61	3.81	-------	2.90	2.56	2.46
23	2.96	4.16	4.36	3.84	4.76	3.94	4.36	3.67	3.60	2.99	2.57	2.40
24	2.95	3.93	4.27	3.64	4.84	3.84	4.20	4.04	3.58	2.92	2.52	2.49
25	2.95	3.75	4.22	3.62	4.96	3.82	4.04	5.05	3.48	2.87	2.55	2.44
26	2.94	3.71	4.01	3.48	5.56	4.45	3.94	4.57	3.30	2.83	2.53	2.46
27	2.95	3.61	3.72	3.47	6.21	4.51	3.79	4.27	3.38	2.80	2.55	2.43
28	2.93	3.49	3.75	3.53	5.46	4.27	3.65	4.12	3.26	2.76	2.55	2.50
29	2.85	3.36	3.75	3.55	-------	4.21	3.55	4.40	3.18	2.77	2.54	2.48
30	2.86	3.35	3.66	3.46	-------	4.12	3.49	3.75	3.08	2.75	2.50	2.44
31	2.77	-------	3.59	3.47	-------	4.01	-------	3.52	-------	2.72	2.47	-------
1930-31												
1	2.46	2.55	2.56	2.84	2.50	3.58	5.24	3.56	3.84	2.83	2.82	2.50
2	2.42	2.52	2.47	2.70	2.52	3.62	6.40	3.50	3.66	2.75	2.74	2.48
3	2.48	2.50	2.63	2.49	2.55	3.44	5.78	3.46	3.52	2.86	2.88	2.70
4	2.49	2.51	2.38	2.52	2.57	3.42	5.80	3.39	3.42	2.95	2.88	2.77
5	2.45	2.50	2.36	2.47	2.51	3.27	5.72	3.32	3.37	2.97	2.64	2.58
6	2.45	2.46	2.46	2.53	2.48	3.19	5.40	3.26	3.23	2.94	2.69	2.51
7	2.42	2.46	2.74	2.76	2.50	3.12	5.18	3.24	3.47	2.94	2.71	2.40
8	2.45	2.48	3.00	2.92	2.45	3.35	5.08	5.15	4.90	3.70	2.64	2.53
9	2.43	2.50	3.02	2.73	2.50	4.52	4.81	5.58	3.93	3.32	2.92	2.54
10	2.47	2.48	2.81	2.65	2.70	3.92	5.04	4.78	3.66	3.48	3.13	2.53
11	2.28	2.48	2.77	2.63	2.69	3.62	5.42	4.46	3.49	4.22	2.99	2.48
12	2.32	2.50	2.92	2.40	2.50	3.46	5.15	4.36	3.35	3.48	3.11	2.45
13	2.34	2.50	4.87	2.37	2.53	3.46	4.65	4.44	3.28	3.22	2.67	2.83
14	2.40	2.48	2.37	2.40	2.52	3.60	4.45	5.35	3.21	3.18	2.49	2.52
15	2.23	2.50	2.39	2.39	2.82	3.78	4.19	4.95	3.22	3.18	2.66	2.50
16	2.44	2.49	2.35	2.39	2.52	3.79	3.98	4.72	3.29	3.12	2.90	2.60
17	2.42	2.52	2.29	2.41	2.50	3.82	3.88	4.51	3.48	3.05	2.90	2.51
18	2.50	2.48	2.24	2.47	4.39	3.82	3.77	4.28	3.24	3.04	2.42	2.50
19	2.49	2.52	2.24	2.38	4.36	3.92	3.64	4.06	3.15	2.91	2.53	2.50
20	2.44	2.52	2.41	2.51	3.58	3.80	3.51	3.86	3.12	2.77	2.56	2.60
21	2.46	2.52	2.48	2.58	3.29	3.86	3.44	6.27	3.21	3.00	2.54	2.55
22	2.42	2.48	2.58	2.50	3.19	3.80	3.38	5.98	3.06	3.19	2.52	2.51
23	2.47	2.47	2.55	2.54	3.12	3.88	3.78	6.18	2.99	3.18	2.75	2.83
24	2.45	2.47	2.59	2.52	3.16	4.12	3.73	6.66	3.01	3.21	2.51	2.62
25	2.47	2.51	2.56	2.39	3.32	4.68	3.58	6.30	3.00	3.10	2.50	2.50
26	2.47	2.38	2.67	2.48	3.55	5.20	3.65	5.74	2.63	2.91	2.54	2.47
27	2.44	2.32	2.70	2.47	3.58	5.05	3.78	5.16	3.40	2.92	2.48	2.63
28	2.43	2.45	2.42	2.53	3.52	5.05	3.74	4.74	3.10	2.88	2.56	2.56
29	2.50	2.39	2.54	2.55	-------	7.06	3.76	4.42	2.99	2.68	2.63	2.52
30	2.49	2.27	2.52	2.50	-------	6.55	3.62	4.32	2.72	2.82	2.75	2.54
31	2.48	-------	2.55	2.59	-------	5.48	-------	3.98	-------	2.91	2.54	-------

Daily mean gage height, in feet, of Fishing Creek at Bloomsburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	2.68	2.59	2.67	2.99	4.92	3.59	9.45	3.27	3.07	2.72	2.43	2.43
2	2.60	2.51	2.64	3.60	4.68	3.50	7.28	3.60	3.04	2.93	2.55	2.44
3	2.46	2.52	2.60	3.92	4.53	3.46	7.05	3.48	3.07	2.93	2.54	2.45
4	2.52	2.48	2.68	3.72	4.40	3.42	6.62	3.39	3.10	2.91	3.03	2.42
5	2.50	2.51	2.67	3.56	4.20	3.41	5.85	3.34	3.12	2.96	2.74	2.40
6	2.48	2.43	2.75	3.62	4.08	3.45	5.57	3.29	3.08	2.94	2.50	2.45
7	2.49	2.52	2.69	6.52	3.92	3.45	5.20	3.38	2.92	2.90	2.72	2.50
8	2.48	2.48	2.54	5.53	3.91	3.46	4.75	3.58	2.87	2.70	2.62	2.42
9	2.50	2.50	2.74	4.48	3.72	3.48	4.69	4.18	2.90	2.85	2.54	2.44
10	2.51	2.48	2.83	4.43	3.85	3.56	4.94	4.09	2.91	2.87	2.58	2.46
11	2.69	2.43	2.83	4.10	4.76	3.38	5.25	4.20	2.88	2.61	2.48	2.45
12	2.37	2.49	2.96	3.87	5.02	3.38	5.10	5.02	2.88	2.51	2.67	2.41
13	2.49	2.49	3.02	3.76	4.92	3.32	4.82	4.79	2.99	2.38	2.44	2.35
14	2.49	2.51	3.22	3.75	4.60	3.29	4.60	4.68	3.00	2.44	2.41	2.38
15	2.50	2.54	3.18	3.69	4.38	3.21	4.55	4.56	2.97	2.78	2.44	2.36
16	2.52	2.52	3.16	3.71	4.18	3.22	4.28	4.19	2.95	2.41	2.42	2.40
17	2.53	2.52	3.14	3.65	4.08	3.34	4.16	3.98	4.11	2.39	2.51	2.36
18	2.61	2.55	3.04	3.60	4.04	3.48	4.10	3.78	3.56	2.52	2.48	2.42
19	2.50	2.46	3.01	3.65	3.77	3.59	3.90	3.66	3.26	2.51	2.47	2.36
20	2.43	2.52	3.00	3.63	3.70	4.08	3.76	3.59	3.14	2.55	2.45	2.36
21	2.44	2.51	2.84	3.62	3.40	4.15	3.62	3.52	3.06	2.54	2.61	2.32
22	2.48	2.64	2.79	4.05	3.50	4.25	3.62	3.42	2.99	2.54	2.52	2.34
23	2.43	2.46	3.05	3.95	3.52	4.45	3.59	3.34	2.95	2.48	2.46	2.34
24	2.36	2.51	3.08	4.20	3.31	4.40	3.46	3.28	2.89	2.60	2.50	2.39
25	3.42	2.50	3.07	4.60	3.36	4.43	3.47	3.20	2.74	2.57	2.52	2.40
26	3.48	2.46	3.06	4.42	3.34	4.37	3.46	3.21	2.83	2.53	2.48	2.38
27	2.40	2.55	2.97	4.58	3.34	5.08	3.41	3.32	3.00	2.64	2.37	2.41
28	2.49	2.58	2.92	4.42	3.94	5.70	3.34	3.31	3.20	2.85	2.49	2.43
29	2.47	2.58	2.96	4.22	3.54	5.68	3.24	3.36	2.98	2.67	2.42	2.41
30	2.44	2.49	2.84	5.90	-------	5.68	3.24	3.33	2.77	2.61	2.41	2.46
31	2.45	-------	2.85	5.62	-------	6.70	-------	3.12	-------	2.53	2.48	-------

SUSQUEHANNA BASIN—STATION NO. 14

WEST BRANCH OF SUSQUEHANNA RIVER AT BOWER

LOCATION.—Water-stage recorder at highway bridge at Bower, Clearfield County 4.8 miles downstream from Mahaffey and mouth of Chest Creek. Zero of gage is 1,207.22 feet above mean sea level. Chain gage at same site and datum used prior to Oct. 18, 1929.

DRAINAGE AREA.—315 square miles (revised).

RECORDS AVAILABLE.—October, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 9,080 second-feet Apr. 5 (gage height, 11.57 feet); minimum, 22 second-feet Sept. 6 (gage height, 3.77 feet).

Maximum discharge during year ending Sept. 30, 1930, 5,550 second-feet Feb. 26 (gage height, 11.27 feet); minimum, 16 second-feet Sept. 29 (gage height, 3.66 feet).

Maximum discharge during year ending Sept. 30, 1931, 4,890 second-feet Apr. 4 (gage height, 10.74 feet); minimum, 16 second-feet Oct. 1, 6, 13 (gage height, 3.66 feet).

Maximum discharge during year ending Sept. 30, 1932, 4,160 second-feet Apr. 1 (gage height, 9.96 feet); minimum, 18 second-feet Sept. 20 (gage height, 3.69 feet).

1913-1932: Maximum discharge (estimated), 13,000 second-feet Sept. 5, 1926; maximum gage height, 14.6 feet, caused by ice, Mar. 12, 1920; minimum discharge occurred in 1930.

REMARKS.—Records good except those for high stages, which are fair, and those for periods of ice effect, which are poor.

Daily discharge, in second-feet, of West Branch of Susquehanna River at Bower, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	60	88	1,640	180	265	1,640	670	972	235	134	75	30
2	62	81	1,090	235	220	1,260	550	900	192	125	67	28
3	62	78	700	180	190	1,010	445	1,640	180	105	62	27
4	55	90	522	180	180	1,640	422	1,090	167	90	134	27
5	57	105	470	167	180	2,770	3,050	972	167	220	125	28
6	67	105	400	250	190	2,640	5,170	935	167	192	70	24
7	70	95	265	265	200	1,840	2,280	1,740	144	125	62	42
8	54	97	250	206	220	1,540	1,450	1,260	144	280	57	72
9	50	156	235	180	240	1,090	1,090	972	125	167	52	62
10	46	116	235	170	260	670	2,170	762	116	192	51	52
11	48	107	235	190	260	700	1,640	610	107	156	52	38
12	49	156	206	240	220	1,090	1,950	550	102	107	107	34
13	46	280	180	260	190	2,280	1,450	522	105	102	67	36
14	52	235	180	240	170	4,150	1,180	762	90	192	54	60
15	48	192	235	220	140	4,150	1,180	1,180	80	125	70	60
16	51	167	250	200	140	3,050	2,520	330	80	93	58	48
17	52	156	235	240	140	2,060	3,820	670	81	75	50	48
18	90	134	422	2,520	160	1,260	2,770	550	70	75	42	65
19	180	470	378	3,350	180	972	2,520	1,090	65	67	40	56
20	98	865	315	1,540	220	830	1,450	1,180	70	57	46	42
21	84	522	100	865	220	762	2,280	1,950	68	55	38	33
22	62	422	206	550	200	670	2,520	1,950	61	50	35	31
23	62	422	280	420	180	865	1,740	1,180	104	48	36	31
24	78	335	250	340	160	865	1,260	935	192	50	39	30
25	104	298	235	280	140	730	1,090	762	220	280	42	30
26	134	235	220	260	2,770	865	1,340	550	355	610	35	30
27	125	220	206	220	6,660	830	1,090	445	156	220	36	31
28	116	220	180	220	2,910	670	935	355	125	144	33	31
29	125	206	180	220	-------	550	1,740	378	335	116	31	34
30	107	400	180	260	-------	700	1,090	378	192	116	31	48
31	92	-------	144	280	-------	830	-------	280	-------	84	30	-------
1929-30												
1	44	361	338	476	170	1,600	571	357	116	70	29	24
2	403	313	334	758	168	2,120	1,500	313	103	95	28	51
3	3,140	335	331	1,410	172	1,600	1,200	271	94	81	26	49
4	1,390	468	331	1,010	197	1,240	927	242	86	68	25	89
5	552	380	338	762	238	1,050	722	219	81	58	25	48
6	353	331	361	700	209	1,050	605	200	78	58	23	35
7	265	295	447	630	192	1,050	868	232	97	576	22	30
8	203	261	1,080	600	170	1,160	940	192	95	200	23	33
9	150	238	1,000	762	165	1,080	739	178	81	122	23	30
10	137	206	717	830	165	888	678	155	110	99	25	26
11	116	232	600	690	170	942	605	141	359	84	22	24
12	101	245	497	897	183	1,160	542	132	183	72	22	22
13	116	209	1,090	1,740	200	940	484	128	120	66	21	25
14	104	245	2,480	1,730	225	975	447	128	99	84	23	26
15	99	1,280	1,770	1,400	203	762	403	150	84	94	27	25
16	84	1,230	1,230	1,050	189	673	661	186	76	71	30	23
17	81	1,410	1,080	792	183	605	1,240	155	744	58	29	29
18	76	3,540	1,470	668	195	590	940	130	670	52	27	37
19	66	2,640	1,690	599	219	734	914	176	357	51	26	28
20	65	1,770	1,680	521	327	580	756	820	242	47	25	25
21	65	1,240	1,080	299	415	497	651	420	186	44	23	20
22	957	875	842	275	590	411	1,050	302	155	42	27	21
23	3,330	684	798	261	734	361	816	235	132	55	28	20
24	1,490	566	630	245	835	357	690	206	114	56	29	21
25	886	497	542	232	3,220	349	605	209	112	45	28	22
26	604	497	590	222	5,110	439	528	168	101	40	25	23
27	455	467	472	216	4,110	390	443	146	99	37	30	25
28	357	515	515	216	2,410	346	403	160	99	37	30	23
29	295	388	497	206	-------	423	388	183	80	36	29	17
30	264	346	451	192	-------	678	342	146	71	31	25	20
31	494	-------	403	175	-------	580	-------	130	-------	28	23	-------

Daily discharge, in second-feet, of West Branch of Susquehanna River at Bower, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	19	25	45	26	136	271	1,140	561	346	72	80	56
2	21	25	42	25	115	357	1,900	480	282	80	70	64
3	21	25	42	25	88	299	1,810	533	232	93	71	377
4	21	25	43	26	73	265	4,580	447	200	247	267	248
5	19	26	47	27	65	219	3,040	368	189	143	150	152
6	18	26	62	33	57	195	1,900	324	183	94	92	114
7	22	29	150	30	49	165	1,440	302	734	81	72	88
8	20	26	140	28	58	170	1,120	538	934	68	70	68
9	19	23	118	27	62	165	975	538	493	60	66	65
10	22	22	78	27	54	146	786	600	349	70	338	62
11	20	26	69	28	48	139	700	576	275	120	425	55
12	21	26	68	30	50	139	585	497	225	95	181	48
13	19	30	68	28	56	128	492	1,080	186	71	122	51
14	21	30	60	26	66	128	435	1,400	160	58	95	47
15	21	28	50	25	62	216	392	1,120	150	52	81	65
16	21	28	43	25	75	258	338	836	195	50	74	65
17	22	26	36	25	138	282	306	792	427	65	62	107
18	21	30	34	26	540	313	285	656	209	386	54	195
19	23	42	34	30	1,350	396	255	566	152	194	66	130
20	19	36	33	30	1,520	408	229	934	124	99	88	344
21	23	50	33	26	1,090	423	200	1,080	118	246	74	931
22	19	28	31	24	708	484	225	901	110	618	61	379
23	21	29	28	24	542	493	515	1,940	114	1,180	50	261
24	24	24	28	25	493	489	472	2,450	150	491	46	213
25	24	26	27	28	376	662	868	1,770	112	403	44	155
26	28	29	28	34	342	868	1,270	1,240	108	242	80	1,070
27	24	26	30	46	282	744	1,730	836	148	165	81	734
28	28	23	30	68	242	1,140	1,200	625	143	126	101	447
29	32	22	29	78	-------	2,260	940	493	97	112	124	292
30	36	24	28	70	-------	1,480	717	411	78	120	103	209
31	28	-------	27	50	-------	1,050	-------	392	-------	99	74	-------
1931-32												
1	160	55	855	353	1,050	203	3,660	189	94	242	51	43
2	135	60	498	651	888	183	2,590	189	90	794	45	38
3	118	60	357	901	940	172	1,860	175	94	388	111	36
4	101	54	313	706	975	183	1,320	148	106	424	159	32
5	87	49	381	646	862	275	1,010	148	94	643	78	30
6	82	48	320	1,470	700	261	842	150	88	368	61	28
7	82	47	265	2,170	635	223	678	150	92	293	54	25
8	95	46	195	1,560	843	190	571	219	80	510	50	23
9	112	45	219	1,200	878	180	661	590	67	320	46	23
10	92	45	386	868	798	170	1,200	1,360	63	206	41	23
11	86	46	754	651	908	170	1,010	1,770	62	170	52	22
12	70	45	1,640	528	810	170	1,160	1,290	65	135	67	22
13	68	52	2,350	484	678	170	1,120	992	80	116	54	20
14	62	61	3,320	435	561	160	1,010	901	88	103	41	23
15	76	57	2,260	480	484	155	1,160	673	87	92	36	24
16	90	60	1,410	561	423	160	920	528	95	97	34	25
17	109	61	975	522	480	200	722	431	349	101	33	22
18	143	65	706	1,610	590	520	625	357	346	84	41	21
19	112	84	556	1,120	447	660	528	302	155	71	78	22
20	92	76	476	842	388	1,150	451	265	104	66	62	19
21	82	72	403	712	327	940	403	238	103	88	45	22
22	74	112	403	975	338	1,160	331	209	528	148	38	22
23	66	130	538	1,540	302	1,460	302	183	956	95	33	22
24	65	116	551	2,410	224	856	278	162	128	71	33	22
25	66	101	1,010	1,640	263	1,080	278	155	99	58	30	22
26	60	87	756	1,160	258	1,240	288	141	87	55	28	20
27	58	81	590	1,050	252	2,030	255	132	783	72	31	22
28	57	94	333	825	242	1,680	216	126	908	97	37	29
29	60	114	476	668	229	1,400	189	122	368	74	38	43
30	62	612	411	1,890	-------	1,650	192	112	225	71	36	33
31	57	-------	349	1,630	-------	3,090	-------	101	-------	58	61	-------

Note.—Discharge estimated for periods of ice effect. Jan. 9-17, Jan. 22 to Feb. 25, Nov. 30 to Dec. 8, 1929, Jan. 20 to Feb. 22, Nov. 27 to Dec. 31, 1930, Jan. 1 to Feb. 19, 1931, Mar. 8-19, 1932. Record from chain gage Oct. 1-17, 1929, Feb. 10-16, 1931.

Monthly discharge, in second-feet, of West Branch of Susquehanna River at Bower, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	180	46	76.9	0.244	0.28
November	865	78	235	.746	.83
December	1,640	100	343	1.09	1.26
January	3,350	167	482	1.53	1.76
February	6,660	140	614	1.95	2.03
March	4,150	550	1,450	4.60	5.30
April	5,170	422	1,770	5.62	6.27
May	1,950	280	915	2.90	3.34
June	355	61	143	.454	.51
July	610	48	144	.457	.53
August	134	30	55.7	.177	.20
September	72	24	40.3	.128	.14
The year	6,660	24	522	1.66	22.45
1929-30					
October	3,330	44	537	1.70	1.96
November	3,540	206	731	2.32	2.59
December	2,480	331	826	2.62	3.02
January	1,740	175	651	2.07	2.39
February	5,110	165	763	2.42	2.52
March	2,120	346	827	2.63	3.03
April	1,500	342	722	2.29	2.56
May	820	128	220	.698	.80
June	744	71	167	.530	.59
July	576	28	82.5	.262	.30
August	30	21	25.7	.082	.09
September	89	17	29.7	.094	.10
The year	5,110	17	463	1.47	19.95
1930-31					
October	36	18	22.5	.071	.08
November	42	22	27.2	.086	.10
December	150	27	51.0	.162	.19
January	78	24	32.9	.104	.12
February	1,520	48	312	.990	1.03
March	2,260	128	476	1.51	1.74
April	4,580	200	1,030	3.27	3.65
May	2,450	302	816	2.59	2.99
June	934	78	241	.765	.85
July	1,180	50	194	.616	.71
August	425	44	108	.343	.40
September	1,070	47	236	.749	.84
The year	4,580	18	294	.933	12.70
1931-32					
October	160	57	86.4	.274	.32
November	612	45	87.8	.279	.31
December	3,320	195	776	2.46	2.84
January	2,410	353	1,040	3.30	3.80
February	1,050	224	578	1.83	1.97
March	3,090	155	714	2.27	2.62
April	3,660	189	861	2.73	3.05
May	1,770	101	403	1.28	1.48
June	908	62	193	.613	.68
July	794	55	197	.625	.72
August	159	28	51.7	.164	.19
September	43	19	25.9	.082	.09
The year	3,660	19	418	1.33	18.07

WEST BRANCH OF SUSQUEHANNA RIVER AT RENOVO

LOCATION.—Water-stage recorder at highway bridge at Renovo, Clinton County. Zero of gage is 634.03 feet above mean sea level. Chain gage at same site and datum used prior to Aug. 14, 1930.

DRAINAGE AREA.—2,990 square miles.

RECORDS AVAILABLE.—July, 1895, to December, 1903; October, 1905, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 59,400 second-feet Mar. 15 (gage height, 12.30 feet); minimum, 176 second-feet Sept. 6 (gage height, —0.74 foot).

Maximum discharge during year ending Sept. 30, 1930, 42,200 second-feet Feb. 27 (gage height, 9.80 feet from graph based on gage readings); minimum, 122 second-feet Aug. 13, Sept. 24, 25 (gage height, —0.92 foot).

Maximum discharge during year ending Sept. 30, 1931, 36,400 second-feet Apr. 5 (gage height, 8.97 feet); minimum, 108 second-feet Nov. 30 (gage height, —0.97 foot).

Maximum discharge during year ending Sept. 30, 1932, 42,200 second-feet Apr. 1 (gage height, 9.80 feet); minimum, 98 second-feet Sept. 22, 23 (gage height, —1.01 feet).

1895-1903, 1905-1932: Maximum discharge (estimated), 106,000 second-feet Apr. 30, 1909; maximum gage height, 25.0 feet, caused by ice jam, Feb. 28, 1910; minimum discharge, 80 second-feet Dec. 6, 1908 (gage height, —1.1 feet).

Maximum stage known, 28.8 feet June 1, 1889 (discharge not determined).

REMARKS.—Records good except those for periods of ice effect, which are poor.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	416	810	7,450	1,400	1,900	14,100	7,160	12,600	6,060	2,710	640	218
2	403	765	11,400	1,400	1,800	10,200	6,320	10,600	4,820	2,200	562	198
3	390	765	8,380	1,600	1,600	8,060	5,800	13,100	4,140	1,770	490	190
4	372	855	6,320	1,400	1,600	8,710	5,300	13,600	3,500	1,450	483	186
5	384	950	5,300	1,400	1,300	14,100	6,870	11,400	3,100	1,390	490	190
6	448	855	4,590	2,800	1,500	19,100	23,800	9,770	2,900	1,770	476	176
7	442	810	3,920	4,820	1,600	17,100	20,200	10,600	2,530	1,640	436	214
8	422	810	3,300	3,500	2,800	15,700	13,100	11,400	2,200	1,910	469	360
9	390	855	2,360	3,300	2,600	11,400	10,200	9,770	1,910	2,710	422	378
10	372	855	2,530	3,710	2,200	8,060	9,050	8,380	1,770	3,100	390	680
11	354	810	2,360	3,710	1,900	6,580	13,100	7,160	1,640	5,060	384	555
12	242	902	2,050	3,100	1,600	7,750	16,100	6,320	1,510	3,920	372	416
13	330	855	1,910	2,900	1,400	14,100	17,100	6,060	1,450	2,900	416	366
14	319	1,000	2,050	2,600	1,300	34,600	14,100	6,060	1,330	2,710	410	422
15	336	1,100	1,910	2,200	1,200	54,600	11,400	12,600	1,220	2,530	354	497
16	354	1,100	1,910	1,900	1,200	47,200	15,600	15,100	1,100	1,910	360	462
17	354	1,050	1,910	1,900	1,200	35,300	24,400	11,800	1,050	1,640	354	416
18	525	1,050	2,200	3,200	1,300	22,600	22,000	9,050	1,100	1,390	319	390
19	1,640	1,100	2,710	7,500	1,400	15,100	16,600	9,050	1,000	1,160	286	511
20	1,450	2,530	2,530	14,000	1,390	11,800	13,600	9,400	1,000	1,050	266	390
21	1,100	4,140	2,200	11,400	1,400	9,770	16,100	11,400	902	902	234	314
22	902	4,140	1,800	7,750	1,300	9,050	21,400	16,100	1,390	765	222	286
23	765	3,500	1,400	6,320	1,300	10,600	18,600	14,100	1,910	722	280	280
24	722	2,900	1,300	5,800	1,200	12,600	14,100	11,000	5,550	640	378	252
25	680	2,710	1,300	5,300	1,200	11,800	11,400	9,050	3,100	680	511	230
26	810	2,360	1,500	4,360	2,200	11,000	16,600	7,160	2,530	855	429	226
27	950	2,050	2,000	3,500	19,600	11,400	16,600	6,060	2,050	810	808	222
28	950	1,910	1,900	3,300	23,800	10,200	13,600	9,050	2,200	1,270	248	222
29	950	1,770	1,600	2,710	-------	8,380	16,100	11,000	4,140	1,000	248	234
30	950	1,910	1,500	2,600	-------	7,160	16,100	8,710	3,500	1,160	230	270
31	902	-------	1,400	2,000	-------	7,160	-------	7,750	-------	855	222	-------

Daily discharge, in second-feet, of West Branch of Susquehanna River at Renovo, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	305	2,800	1,740	3,600	1,800	17,600	4,360	3,600	1,640	1,490	241	162
2	778	2,800	1,670	3,600	1,800	16,600	4,820	3,280	1,460	2,080	227	155
3	6,870	2,620	1,640	5,930	2,230	15,100	6,870	3,180	1,320	2,230	213	152
4	12,200	2,890	1,660	9,050	2,230	14,000	7,020	2,710	1,200	1,670	204	162
5	6,460	3,490	1,740	8,380	2,080	9,410	6,190	2,540	1,090	1,420	196	196
6	3,600	3,180	1,940	7,160	1,940	8,060	5,550	2,380	1,090	1,200	183	200
7	2,540	2,890	2,230	6,060	1,800	8,060	6,590	2,230	1,200	1,180	162	204
8	2,010	2,710	2,710	5,800	1,740	11,800	8,380	2,080	1,180	2,080	159	236
9	1,600	2,540	5,420	6,730	1,640	14,100	8,380	2,010	1,100	2,080	142	236
10	1,340	2,300	5,550	10,600	1,540	11,800	7,600	1,800	1,470	1,290	145	218
11	1,140	2,230	4,820	10,200	1,520	10,200	7,160	1,670	2,710	999	142	191
12	990	2,160	4,250	9,050	1,520	12,200	6,590	1,550	2,230	852	135	166
13	929	2,080	3,920	15,100	1,600	11,400	6,060	1,480	2,160	761	122	148
14	929	2,080	5,420	25,200	1,940	9,800	5,930	1,470	1,740	769	131	162
15	919	3,700	10,600	22,100	2,160	8,380	5,300	1,800	1,430	778	128	209
16	552	8,380	9,410	16,100	2,010	7,750	6,320	2,160	1,280	701	148	191
17	769	8,710	8,380	11,400	1,740	6,870	16,100	1,940	1,940	628	175	200
18	692	14,100	10,600	8,710	1,600	6,590	22,700	1,800	4,360	597	166	179
19	668	23,900	16,100	6,590	1,600	7,450	20,300	1,940	5,800	538	162	175
20	620	18,600	20,900	5,300	1,800	7,300	16,600	3,490	4,030	484	155	170
21	590	12,200	17,100	4,820	2,540	6,590	12,200	4,940	3,080	458	148	162
22	968	9,410	11,000	4,080	3,700	5,550	10,600	4,360	2,380	433	145	152
23	7,160	7,160	8,710	3,600	4,140	4,820	9,800	3,600	2,080	470	155	138
24	16,600	6,190	7,450	3,080	4,940	4,480	8,380	3,080	1,870	470	162	128
25	8,710	5,420	6,190	2,800	9,050	4,250	7,160	2,890	1,740	458	166	128
26	5,930	4,700	5,300	2,540	29,400	4,820	6,320	2,460	1,590	374	179	135
27	4,590	4,360	4,820	2,380	40,000	4,700	5,500	2,230	2,380	363	183	162
28	3,600	4,140	4,590	2,300	26,600	4,360	4,820	2,080	2,380	352	170	222
29	2,980	3,700	4,360	2,300	-------	3,920	4,360	2,080	1,800	316	170	290
30	2,540	3,080	4,140	2,080	-------	4,030	3,920	1,940	1,570	275	175	232
31	2,460	-------	3,700	1,940	-------	4,480	-------	1,870	-------	265	162	-------
1930-31												
1	179	170	152	153	800	1,870	10,700	7,450	5,300	861	787	531
2	155	200	162	140	700	1,740	17,200	6,320	4,480	769	644	477
3	142	187	157	133	540	1,740	19,100	6,190	3,810	968	582	746
4	138	183	157	143	500	1,800	26,200	5,080	3,180	1,740	597	1,260
5	131	175	200	157	410	1,630	32,900	5,060	2,800	2,230	761	1,100
6	128	166	320	183	365	1,420	23,000	4,590	2,540	1,670	657	1,070
7	122	162	504	168	325	1,260	17,100	4,140	4,690	1,320	778	833
8	117	155	761	154	270	1,170	13,200	8,860	12,100	1,050	597	652
9	117	148	824	152	310	1,140	11,400	15,100	12,100	861	575	531
10	117	145	833	154	280	1,060	11,800	12,600	8,320	815	1,360	458
11	117	148	744	159	270	1,620	13,100	11,000	6,320	1,280	2,060	397
12	122	159	597	167	285	899	10,600	9,410	4,040	1,380	2,620	363
13	125	170	531	155	315	968	8,380	11,300	4,030	1,060	1,740	336
14	125	179	464	145	370	948	6,870	23,100	3,180	958	1,200	310
15	122	187	331	138	350	1,110	5,930	22,100	2,800	806	939	285
16	125	187	260	138	420	1,360	5,060	15,600	2,890	692	778	295
17	135	196	200	141	700	1,440	4,480	13,100	2,710	636	652	326
18	152	209	183	151	1,770	1,480	4,030	11,400	2,460	620	568	433
19	138	204	183	168	1,700	1,630	3,490	9,410	2,300	703	524	458
20	135	204	182	153	2,000	2,010	3,080	8,380	1,870	1,070	518	880
21	128	204	180	141	4,250	2,300	2,800	10,200	1,670	1,150	504	709
22	128	200	165	133	3,490	2,890	2,710	10,600	1,620	1,370	497	799
23	131	191	158	132	2,710	3,700	4,030	19,400	1,400	1,870	504	1,440
24	131	191	157	135	2,230	4,360	4,940	30,600	1,430	2,030	464	919
25	131	191	152	146	2,080	5,300	5,300	26,600	1,340	2,050	397	692
26	135	179	155	168	2,080	7,020	6,740	20,900	1,220	1,370	367	676
27	142	159	168	210	2,010	7,450	13,500	15,400	1,140	1,110	516	966
28	166	132	167	270	1,800	8,400	14,100	11,000	1,050	948	511	2,280
29	175	117	164	380	-------	20,600	11,400	8,380	1,040	806	531	1,490
30	183	117	160	430	-------	20,600	9,050	6,730	968	787	553	1,070
31	204	-------	154	870	-------	14,300	-------	6,060	-------	968	560	-------

Daily discharge, in second-feet, of West Branch of Susquehanna River at Renovo, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	815	275	913	2,980	11,400	2,160	39,200	2,460	1,430	1,530	490	358
2	652	285	2,410	3,920	9,050	2,010	32,200	2,460	1,340	1,820	433	285
3	568	280	1,980	4,940	8,060	1,870	22,100	2,300	1,310	2,870	439	250
4	504	280	1,480	5,420	7,750	1,800	16,660	2,080	1,480	2,940	484	236
5	464	270	1,340	4,940	7,450	1,800	12,200	2,010	1,460	4,140	582	227
6	414	270	1,470	5,890	6,590	1,940	9,800	1,940	1,580	3,700	735	191
7	391	260	1,440	16,700	5,800	2,190	7,900	2,080	1,370	2,800	590	159
8	397	255	1,200	18,100	5,550	1,900	6,730	6,260	1,190	2,460	451	155
9	397	241	958	13,600	6,190	1,800	6,320	17,900	1,070	2,380	386	148
10	391	232	1,180	9,800	6,320	1,700	8,180	20,400	988	2,160	336	142
11	391	232	1,380	7,600	6,870	1,700	10,600	28,000	890	1,740	326	131
12	391	227	3,470	6,060	7,900	1,700	11,400	25,900	861	1,490	347	125
13	369	250	6,830	5,230	7,900	1,700	11,400	17,600	880	1,200	336	117
14	347	255	19,100	4,820	7,300	1,600	10,200	13,000	948	1,030	316	122
15	336	285	20,600	5,240	6,320	1,550	8,710	9,800	939	890	285	120
16	331	326	12,400	14,100	5,420	1,550	7,900	7,750	1,520	806	265	138
17	347	342	8,320	11,800	4,940	1,900	6,870	6,320	2,280	761	260	162
18	352	347	6,320	20,100	4,940	1,800	6,060	5,300	2,980	709	270	145
19	386	363	4,940	19,700	4,590	2,000	5,300	4,480	2,300	660	329	122
20	402	374	4,200	13,400	4,140	3,000	4,820	3,920	1,940	692	470	111
21	433	391	3,600	9,800	3,490	5,000	4,250	3,490	1,520	806	402	106
22	402	408	3,080	9,800	3,180	4,600	3,920	3,180	1,350	796	336	105
23	363	545	3,180	10,200	2,980	5,600	3,490	2,800	1,250	963	326	108
24	331	652	3,700	15,800	2,620	6,400	3,180	2,540	1,720	815	295	111
25	310	612	4,960	17,100	2,460	6,320	2,980	2,300	1,320	735	255	108
26	295	582	6,190	15,100	2,380	7,020	3,180	2,160	1,030	590	227	111
27	280	531	5,550	10,200	2,380	13,100	2,980	2,080	1,050	524	209	120
28	270	518	4,700	8,710	2,380	16,600	2,710	1,940	1,750	531	209	162
29	260	490	4,250	7,300	2,300	13,600	2,540	1,800	3,600	605	232	256
30	260	504	3,700	8,500	-------	12,200	2,380	1,660	2,160	668	358	388
31	260	-------	3,280	13,100	-------	18,200	-------	1,520	-------	575	402	-------

Note.—Discharge estimated for periods of ice effect, Dec. 21-31, 1928, Jan. 1-6, 14-20, Jan. 30 to Feb. 19, Feb. 21-26, Dec. 2-6, 1929, Jan. 22-24, Jan. 26 to Feb. 2, Feb. 6-23, Nov. 28, 29, Dec. 3-6, 18-31, 1930, Jan. 1 to Feb, 20, 1931, Mar. 8-23, 1932.

Monthly discharge, in second feet, of West Branch of Susquehanna River at Renovo, 1928-1932

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	1,640	319	636	0.213	0.25
November	4,140	765	1,570	.525	.59
December	11,400	1,300	3,060	1.02	1.18
January	11,400	1,400	3,980	1.33	1.53
February	23,800	1,200	3,040	1.02	1.06
March	54,600	6,590	15,600	5.22	6.02
April	24,400	5,300	14,400	4.82	5.38
May	16,100	6,060	10,200	3.41	3.93
June	6,060	902	2,420	.809	.90
July	5,060	640	1,760	.589	.68
August	640	222	377	.126	.15
September	680	176	325	.109	.12
The year	54,600	176	4,800	1.61	21.79
1929-30					
October	16,600	305	3,290	1.10	1.27
November	23,900	2,080	5,820	1.95	2.18
December	20,900	1,640	6,390	2.14	2.47
January	25,200	1,940	7,370	2.46	2.84
February	40,000	1,520	5,600	1.87	1.95
March	17,600	3,920	8,510	2.85	3.29
April	22,700	3,920	8,390	2.81	3.14
May	4,940	1,470	2,470	.826	.95
June	5,800	1,090	2,040	.682	.76
July	2,230	265	905	.303	.35
August	241	122	166	.056	.06
September	290	128	182	.061	.07
The year	40,000	122	4,250	1.42	19.33
1930-31					
October	204	117	139	.046	.05
November	209	117	174	.058	.06
December	333	152	307	.103	.12
January	870	132	196	.066	.08
February	4,250	270	1,190	.398	.41
March	20,600	899	4,040	1.35	1.56
April	32,900	2,710	10,700	3.58	3.99
May	30,600	4,140	12,200	4.08	4.70
June	12,100	968	3,520	1.18	1.32
July	2,230	620	1,160	.388	.45
August	2,620	367	785	.263	.30
September	2,280	285	759	.254	.28
The year	32,900	117	2,930	.980	13.32
1931-32					
October	815	260	391	.131	.15
November	652	227	363	.121	.14
December	20,600	913	4,780	1.60	1.84
January	20,100	2,980	10,300	3.44	3.97
February	11,400	2,300	5,470	1.83	1.97
March	18,200	1,550	4,720	1.58	1.82
April	39,200	2,380	9,200	3.08	3.44
May	28,000	1,520	6,690	2.24	2.58
June	3,600	861	1,520	.508	.57
July	4,140	524	1,430	.478	.55
August	735	209	367	.123	.14
September	388	103	167	.056	.06
The year	39,200	103	3,790	1.27	17.23

WEST BRANCH OF SUSQUEHANNA RIVER AT LOCK HAVEN

LOCATION.—Chain gage at Jay Street Bridge at Lock Haven, Clinton County. Zero of gage is 535.00 feet above mean sea level.

DRAINAGE AREA.—3,350 square miles.

RECORDS AVAILABLE.—October, 1913, to August, 1923; August, 1925, to September, 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 19.84 feet, caused by ice, Feb. 28; minimum, 0.85 foot Sept. 6.

Maximum stage during year ending Sept. 30, 1930, 11.60 feet (determined from hydrograph) Feb. 27; minimum, 0.82 foot Sept. 28.

Maximum stage during year ending Sept. 30, 1931, 10.71 feet Apr. 5; minimum, 0.64 foot Oct. 9.

Maximum stage during year ending Sept. 30, 1932, 12.58 feet Apr. 1; minimum, 0.60 foot Sept. 25.

1913-1923, 1925-1932: Maximum stage, 26.8 feet, caused by ice, Feb. 21, 1918; minimum, that of Sept. 25, 1932.

Maximum stage known, 29.8 feet, from flood marks, during flood of 1889.

REMARKS.—Gage-height records good. Gage heights obtained at this station are for flood warning purposes. Discharge not determined.

Daily mean gage height, in feet, 1928-1932

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1.25	1.72	3.24	2.13	5.26	14.66	4.72	6.66	4.66	3.28	1.69	0.90
2	1.22	1.70	5.74	2.86	5.04	10.86	4.46	6.12	4.13	2.90	1.50	.89
3	1.20	1.70	5.22	3.13	4.92	7.59	4.32	6.59	3.84	2.68	1.42	.88
4	1.18	1.78	4.56	2.84	4.80	6.54	4.20	6.84	3.58	2.46	1.34	.86
5	1.17	1.75	4.12	2.67	4.72	6.94	4.44	6.59	3.37	2.33	1.29	.86
6	1.21	1.71	3.92	3.04	4.35	8.49	6.79	5.89	3.23	2.39	1.28	.86
7	1.22	1.68	3.58	4.24	4.54	7.22	8.09	6.04	3.08	2.35	1.22	.90
8	1.25	1.74	3.36	4.16	4.84	6.89	6.82	6.09	2.94	2.56	1.25	1.11
9	1.22	1.74	3.22	3.62	4.80	6.14	5.84	5.92	2.82	3.26	1.37	1.24
10	1.18	1.71	2.96	3.66	4.61	5.24	5.49	5.42	2.64	3.02	1.26	1.24
11	1.13	1.70	2.69	3.82	4.44	4.74	6.06	5.04	2.52	4.00	1.24	1.60
12	1.10	1.73	2.71	3.56	4.04	6.14	6.99	4.66	2.43	3.76	1.24	1.40
13	1.09	1.78	2.54	3.66	3.82	9.84	7.66	4.49	2.37	3.35	1.20	1.26
14	1.08	1.79	2.75	3.92	3.75	14.39	7.04	4.32	2.30	3.14	1.23	1.27
15	1.06	1.88	2.73	4.24	3.69	14.26	6.39	5.59	2.23	3.02	1.26	1.32
16	1.11	1.85	2.63	4.34	3.65	13.19	7.09	6.86	2.16	2.70	1.19	1.41
17	1.14	1.82	2.56	4.09	3.64	11.16	9.04	6.32	2.08	2.50	1.14	1.44
18	1.19	2.06	2.61	4.34	3.64	8.82	8.49	5.76	2.01	2.30	1.12	1.30
19	1.52	2.02	2.98	8.09	3.60	7.79	7.39	5.44	2.05	2.17	1.10	1.26
20	2.39	2.39	2.94	8.44	3.50	6.59	6.82	5.58	1.98	2.02	1.02	1.38
21	2.12	3.34	2.72	6.36	3.40	5.84	7.29	5.94	1.96	1.88	.98	1.26
22	1.87	3.54	2.48	5.49	3.24	5.42	8.19	7.04	2.08	1.76	.96	1.12
23	1.75	3.38	2.26	5.49	3.32	5.72	7.96	6.94	2.15	1.68	.98	1.05
24	1.65	3.22	2.10	4.82	3.35	6.32	6.92	6.24	3.49	1.57	1.14	1.08
25	1.62	3.02	2.03	5.29	3.38	6.22	6.19	5.72	3.48	1.56	1.80	1.02
26	1.56	2.88	2.13	5.82	3.92	5.99	7.02	5.24	3.15	1.65	1.41	.96
27	1.65	2.74	2.16	6.09	11.00	6.06	7.46	4.56	2.79	1.80	1.24	.94
28	1.67	2.60	2.27	6.59	16.07	5.89	6.94	4.99	2.77	2.30	1.10	.92
29	1.80	2.45	2.62	6.39	-------	5.43	6.92	5.72	3.42	2.09	.99	1.04
30	1.86	2.51	2.46	5.84	-------	5.06	7.12	5.56	3.63	1.84	.96	1.08
31	1.78	-------	2.31	5.54	-------	4.92	-------	5.06	-------	1.86	.92	-------

Daily mean gage height, in feet, of West Branch of Susquehanna River at Lock Haven, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1.08	3.05	2.85	3.60	3.87	7.72	3.82	3.55	2.52	2.34	0.91	0.94
2	1.47	3.21	2.64	3.61	3.83	7.07	3.82	3.42	2.39	2.37	.93	.96
3	3.82	3.11	3.58	3.97	4.05	7.03	4.36	3.28	2.27	2.87	.91	.93
4	6.55	3.18	3.42	5.30	4.19	6.35	4.78	3.14	2.19	2.53	.88	.92
5	5.08	3.36	3.19	5.38	4.09	5.72	4.51	3.02	2.08	2.36	.90	.90
6	3.82	3.38	3.07	4.94	3.95	5.32	4.30	2.91	2.07	2.17	.89	.90
7	3.20	3.23	3.30	4.66	3.65	5.05	4.56	2.84	2.19	2.08	.87	.91
8	2.75	3.12	3.63	4.52	3.54	6.15	5.26	2.79	2.22	2.09	.91	.90
9	2.49	3.03	5.22	4.68	3.52	6.95	5.48	2.74	2.15	2.87	.91	.88
10	2.28	2.93	4.41	5.63	3.50	6.51	5.11	2.63	2.36	2.36	.89	.88
11	2.13	2.87	4.02	6.03	3.41	5.99	4.94	2.49	3.00	2.05	.89	.86
12	2.00	2.82	3.88	5.76	3.39	6.28	4.78	2.42	3.06	1.85	.87	.88
13	1.90	2.81	3.65	6.73	3.43	6.26	4.67	2.32	2.91	1.80	.87	.88
14	1.86	2.80	3.88	8.73	3.69	5.77	4.54	2.37	2.75	1.75	.91	.87
15	1.84	3.12	5.68	8.58	3.68	5.41	4.34	2.54	2.52	1.69	.92	.90
16	1.79	4.77	5.65	7.43	3.60	5.12	4.48	2.79	2.36	1.64	.91	.90
17	1.72	5.22	5.28	6.40	3.57	4.87	6.46	2.75	2.36	1.57	.94	.90
18	1.66	6.18	5.73	5.69	3.55	4.73	8.46	2.65	3.55	1.48	.96	.90
19	1.58	8.78	6.98	4.94	3.52	4.91	8.08	2.63	4.71	1.65	.91	.89
20	1.54	7.87	8.33	4.44	3.61	4.95	7.41	3.28	4.00	1.39	.92	.87
21	1.54	6.66	7.79	4.36	3.96	4.77	6.46	4.18	3.53	1.31	.92	.88
22	1.65	5.73	6.53	4.22	5.06	4.45	5.96	4.02	3.22	1.32	.93	.88
23	3.85	5.13	5.68	4.13	6.65	4.12	5.72	3.71	2.89	1.33	.98	.86
24	7.30	4.56	5.14	5.27	4.72	4.01	5.34	3.48	2.73	1.30	.93	.84
25	5.60	4.30	4.83	4.97	5.52	3.83	4.98	3.32	2.63	1.28	.94	.87
26	4.60	4.03	4.36	4.89	8.82	3.95	4.66	3.09	2.52	1.27	.96	.85
27	3.98	3.82	4.14	4.94	11.17	4.06	4.36	2.93	2.59	1.19	.93	.88
28	3.58	3.70	3.98	5.07	9.47	3.90	4.09	2.85	3.03	1.13	.94	.83
29	3.28	3.62	3.92	5.08	-------	3.68	3.88	2.80	2.65	1.07	.92	.84
30	3.08	3.46	3.84	4.53	-------	3.64	3.71	2.76	2.46	1.03	.92	.89
31	3.04	-------	3.63	4.15	-------	3.78	-------	2.67	-------	.97	.94	-------
1930-31												
1	.86	.79	.81	.93	2.20	2.59	6.11	5.02	4.45	1.85	1.84	1.40
2	.88	.77	.80	.90	1.98	2.54	7.21	4.66	4.06	1.81	1.75	1.40
3	.86	.78	.79	.84	1.84	2.54	8.03	4.45	3.74	1.95	1.66	1.42
4	.84	.79	.85	.82	1.72	2.43	8.46	4.29	3.46	2.44	1.57	1.98
5	.82	.77	.92	.82	1.62	2.32	10.31	4.06	3.22	2.68	1.54	1.95
6	.80	.79	1.07	.92	1.52	2.22	8.91	3.86	3.06	2.66	1.57	1.87
7	.82	.77	1.26	1.00	1.43	2.16	7.46	3.77	3.35	2.31	1.52	1.82
8	.74	.77	1.47	1.02	1.32	2.07	6.73	4.68	5.92	2.08	1.61	1.68
9	.70	.77	1.83	1.04	1.24	2.07	6.20	6.94	6.52	1.96	1.66	1.46
10	.75	.77	1.74	1.04	1.32	1.99	6.15	6.34	5.50	1.90	2.01	1.32
11	.74	.77	1.79	1.04	1.33	1.88	6.36	5.98	4.72	2.01	2.68	1.26
12	.74	.77	1.58	1.05	1.28	1.79	6.06	5.62	4.14	2.18	2.78	1.20
13	.74	.79	1.42	1.12	1.26	1.76	5.43	6.02	3.78	2.13	2.75	1.16
14	.74	.79	1.21	1.15	1.39	1.85	4.91	8.47	3.42	1.92	2.26	1.12
15	.74	.81	1.05	1.16	1.46	1.99	4.53	8.87	3.22	1.82	1.97	1.04
16	.73	.81	.97	1.07	1.69	2.15	4.20	7.54	3.32	1.69	1.88	1.01
17	.72	.81	.92	.97	2.36	2.25	3.99	6.65	3.32	1.61	1.67	1.12
18	.76	.83	.85	.93	2.89	2.30	3.73	6.28	3.07	1.55	1.52	1.17
19	.73	.83	.83	.92	2.86	2.41	3.53	5.69	2.92	1.51	1.46	1.29
20	.73	.81	.87	.94	3.12	2.59	3.36	5.39	2.73	1.67	1.46	1.29
21	.72	.79	.86	.96	4.25	2.73	3.20	5.74	2.60	2.02	1.41	1.78
22	.73	.78	.84	.98	3.80	3.05	3.09	5.92	2.49	2.49	1.36	1.56
23	.77	.78	.81	.94	3.31	3.43	3.53	8.01	2.42	2.61	1.33	2.03
24	.77	.77	.80	.93	2.87	3.67	3.86	10.40	2.29	2.79	1.81	2.01
25	.77	.77	.76	.92	2.65	3.99	4.20	9.80	2.29	2.83	1.26	1.69
26	.77	.77	.82	1.02	2.68	4.65	4.63	8.46	2.15	2.44	1.20	1.69
27	.77	.98	.84	1.07	2.68	4.93	6.16	7.33	2.13	2.08	1.17	1.61
28	.79	1.03	.85	1.34	2.63	5.11	6.83	6.31	2.02	1.95	1.55	2.40
29	.79	.84	.88	1.52	-------	7.46	6.11	5.55	1.96	1.80	1.42	2.46
30	.79	.76	.90	2.07	-------	8.39	5.59	5.00	1.92	1.75	1.40	2.07
31	.79	-------	.93	2.50	-------	6.86	-------	4.64	-------	1.79	1.41	-------

Daily mean gage height, in feet, of West Branch of Susquehanna River at Lock Haven, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1.84	1.03	1.50	3.30	6.36	2.78	12.26	2.92	2.31	2.48	1.37	1.20
2	1.64	1.02	3.00	3.58	5.78	2.74	10.97	2.96	2.28	2.48	1.28	1.14
3	1.50	1.00	2.80	4.01	5.34	2.71	9.29	2.89	2.31	2.80	1.25	1.05
4	1.42	1.00	2.44	4.30	5.10	2.63	7.60	2.81	2.29	3.36	1.30	.99
5	1.31	.98	2.21	4.20	4.68	2.57	6.72	2.75	2.26	3.44	1.32	.88
6	1.30	.97	2.18	4.43	4.78	2.53	5.88	2.71	2.36	3.54	1.37	.92
7	1.22	.96	2.28	6.96	4.48	2.59	5.33	2.72	2.30	3.30	1.41	.90
8	1.22	.94	2.06	7.93	4.33	2.47	4.89	4.69	2.15	2.98	1.43	.87
9	1.23	.93	1.82	6.84	4.56	2.37	4.68	8.18	2.01	2.90	1.24	.88
10	1.18	.94	1.93	6.06	4.60	2.18	4.95	8.25	1.91	2.76	1.15	.88
11	1.19	.92	2.07	4.67	4.76	2.29	5.61	10.07	1.83	2.58	1.12	.87
12	1.21	.92	2.53	4.59	5.10	2.60	6.13	10.35	1.86	2.39	1.08	.86
13	1.20	.92	4.23	4.28	5.20	2.75	6.39	8.44	1.89	2.21	1.08	.86
14	1.17	.92	7.20	4.14	4.98	2.71	6.17	6.85	1.93	2.06	1.06	.84
15	1.19	.95	7.90	3.96	4.74	2.55	5.82	5.95	1.96	1.89	1.04	.84
16	1.14	1.04	6.58	6.83	4.84	2.55	5.32	5.05	2.10	1.78	.97	.84
17	1.17	1.13	5.42	6.40	4.14	2.63	4.87	4.55	2.57	1.72	.92	.84
18	1.20	1.17	4.58	7.08	4.69	2.64	4.55	4.37	3.34	1.64	1.12	.84
19	1.16	1.17	4.08	8.18	4.04	2.82	4.32	3.99	3.01	1.57	1.05	.85
20	1.21	1.19	3.68	6.83	3.90	3.19	4.13	3.75	2.69	1.58	1.04	.81
21	1.21	1.18	3.53	5.98	3.59	3.57	3.92	3.61	2.46	1.68	1.08	.78
22	1.22	1.21	3.30	5.53	3.31	4.09	3.69	3.45	2.24	1.80	1.16	.74
23	1.18	1.31	3.22	5.76	3.26	4.09	3.49	3.27	2.14	1.68	1.07	.64
24	1.13	1.67	3.46	7.14	3.17	4.39	3.37	3.10	2.08	1.67	1.04	.62
25	1.10	1.51	3.65	7.40	2.95	4.52	3.29	2.95	2.38	1.68	.99	.61
26	1.06	1.49	4.23	6.67	2.93	4.57	3.21	2.85	2.14	1.64	.92	.68
27	1.02	1.47	4.23	5.90	3.02	5.85	3.22	2.77	1.98	1.50	.89	.73
28	.97	1.42	3.98	5.58	2.91	6.65	3.10	2.69	2.26	1.43	.88	.67
29	.99	1.36	3.78	5.13	2.84	6.77	2.97	2.57	2.97	1.38	.88	.71
30	1.02	1.39	3.58	5.28	-------	6.38	2.89	2.49	3.06	1.45	1.01	.85
31	1.00	-------	3.40	7.00	-------	7.32	-------	2.40	-------	1.42	1.13	-------

SUSQUEHANNA BASIN—STATION NO. 17

WEST BRANCH OF SUSQUEHANNA RIVER AT WILLIAMSPORT

LOCATION.—Water-stage recorder at highway bridge at Williamsport, Lycoming County. Zero of gage is 494.55 feet above mean sea level.

DRAINAGE AREA.—5,670 square miles.

RECORDS AVAILABLE.—March, 1895, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 94,500 second-feet Mar. 15 (gage height, 16.62 feet); minimum, 480 second-feet Sept. 5 (gage height, —0.22 foot).

Maximum discharge during year ending Sept. 30, 1930, 54,700 second-feet Feb. 27 (gage height, 12.29 feet); minimum, 427 second-feet Sept. 26 (gage height, —0.27 foot).

Maximum discharge during year ending Sept. 30, 1931, 58,600 second-feet May 24 (gage height, 12.76 feet); minimum, about 245 second-feet Nov. 28 (gage height, —0.50 foot).

Maximum discharge during year ending Sept. 30, 1932, 75,600 second-feet Apr. 1 (gage height, 14.68 feet); minimum, 231 second-feet Sept. 12, 13 (gage height, —0.42 foot).

1895-1932: Maximum discharge, about 147,000 second-feet Mar. 5, 1923; maximum gage height, 21.7 feet, caused by ice, Mar. 1, 1902; minimum discharge that of Sept. 12, 13, 1932.

Maximum stage known, 32.4 feet June 1, 1889 (discharge not determined).

REMARKS.—Records good except those for late summer and early autumn and for periods of ice effect, which are fair.

Daily discharge, in second-feet, of West Branch of Susquehanna River at Williamsport, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1,140	1,550	3,570	2,240	3,360	31,200	12,800	24,900	13,600	5,220	1,480	566
2	1,140	1,480	12,800	2,240	4,010	23,900	11,200	21,400	10,800	4,480	1,280	544
3	1,140	1,410	13,600	2,760	2,760	19,000	10,400	31,800	9,020	3,570	1,140	655
4	1,080	1,410	10,400	2,240	2,580	17,200	9,690	31,200	7,750	2,950	1,080	533
5	1,080	1,410	8,380	1,770	2,410	18,100	10,000	27,000	6,850	2,580	960	511
6	1,080	1,480	7,140	3,360	2,410	28,500	25,400	22,900	6,280	2,580	840	544
7	1,140	1,410	6,000	5,470	2,410	32,900	38,000	21,900	5,470	2,760	900	522
8	1,140	1,410	5,220	7,750	2,760	27,500	27,500	21,900	4,970	2,760	960	577
9	1,140	1,340	4,480	7,140	3,570	21,400	21,400	20,900	4,480	3,150	900	720
10	1,020	1,410	3,790	6,850	3,360	17,200	18,100	18,100	4,010	3,790	960	960
11	1,020	1,410	3,570	7,140	3,150	13,200	21,400	15,400	3,570	4,240	900	1,080
12	1,020	1,410	2,950	6,560	2,950	12,800	27,000	13,600	3,150	6,560	900	1,210
13	1,020	1,410	2,950	5,470	2,410	19,500	32,300	12,300	3,150	4,970	900	1,080
14	960	1,480	3,150	5,730	2,000	41,000	29,100	11,900	2,950	3,790	900	1,140
15	960	1,550	3,360	4,480	1,770	86,400	23,900	14,500	2,760	3,360	900	1,080
16	960	1,550	3,150	2,760	1,840	86,400	29,100	21,900	2,410	3,360	960	1,080
17	960	1,700	3,150	2,950	2,080	68,200	43,500	20,900	2,240	2,760	840	1,080
18	1,020	1,620	2,950	3,150	2,410	44,100	39,800	18,100	2,080	2,410	780	1,080
19	1,080	1,700	3,360	10,800	2,580	31,200	32,300	15,800	2,080	2,080	780	1,020
20	2,000	1,840	3,790	25,900	2,410	24,400	29,600	18,100	2,080	1,840	720	960
21	2,240	4,010	3,360	21,900	2,950	19,900	31,800	19,000	2,080	1,700	665	960
22	1,840	5,220	2,410	15,400	1,840	17,600	39,200	24,900	2,410	1,550	676	840
23	1,620	4,970	2,080	10,400	2,240	19,000	37,400	25,900	2,580	1,410	654	720
24	1,550	4,480	1,770	9,020	2,000	21,900	29,600	21,900	3,570	1,280	665	698
25	1,410	4,010	1,920	7,750	1,920	21,900	23,900	19,000	6,560	1,280	780	687
26	1,410	3,570	2,410	7,440	6,000	20,400	27,000	15,800	5,730	1,340	840	665
27	1,410	3,150	2,950	6,280	20,900	20,900	29,600	13,200	4,240	1,410	900	632
28	1,620	2,950	2,950	4,720	32,900	19,500	25,900	15,800	3,790	1,550	780	632
29	1,550	2,580	2,760	4,480	-------	17,200	26,400	21,400	4,970	1,840	709	632
30	1,550	2,580	2,580	4,720	-------	14,500	27,500	20,900	6,280	1,700	632	676
31	1,620	-------	2,240	3,790	-------	13,200	-------	16,700	-------	1,550	599	-------
1929-30												
1	755	4,240	4,600	7,140	3,790	31,800	8,060	7,140	3,790	3,680	778	620
2	1,850	4,360	4,360	7,000	3,360	25,900	7,750	6,700	3,360	3,680	745	640
3	9,160	4,720	4,240	8,160	3,680	25,400	8,700	6,140	3,050	4,360	712	630
4	17,600	5,470	4,120	13,800	4,240	21,900	10,800	5,730	2,720	4,240	590	620
5	14,000	5,730	4,120	15,300	4,600	18,100	10,400	5,220	2,480	3,460	600	590
6	8,010	5,600	4,240	13,600	4,480	15,800	9,690	4,720	2,390	2,950	640	550
7	5,220	5,220	4,480	11,900	3,790	14,500	13,800	4,480	2,890	2,740	640	510
8	3,790	4,720	4,970	11,200	3,150	25,800	17,600	4,360	2,800	2,650	620	560
9	2,950	4,360	5,940	11,900	3,150	33,500	18,500	4,120	2,660	2,890	600	570
10	2,390	4,120	8,660	15,300	3,050	28,000	16,700	3,900	4,430	3,360	580	580
11	2,060	3,900	7,600	18,500	2,950	23,400	14,900	3,570	8,700	2,680	540	590
12	1,800	3,570	7,140	17,100	2,760	22,900	13,600	3,360	7,900	2,120	520	570
13	1,650	3,570	5,470	19,500	2,760	22,400	12,800	3,150	6,280	1,890	510	550
14	1,510	3,460	6,140	32,300	3,050	19,900	13,200	3,150	5,470	2,070	560	560
15	1,450	3,900	15,300	36,800	3,570	17,100	12,300	4,240	4,600	2,040	540	630
16	1,450	8,740	16,200	30,700	4,020	15,300	12,800	5,340	3,790	1,790	560	630
17	1,290	13,200	14,000	23,900	3,050	14,000	22,000	5,220	3,360	1,600	590	650
18	1,230	19,200	15,800	18,500	2,950	13,200	37,400	4,600	6,660	1,450	640	630
19	1,180	37,400	24,900	14,500	2,950	15,800	35,100	4,480	13,600	1,340	660	610
20	1,130	34,000	36,300	10,400	3,460	15,800	30,700	5,890	11,200	1,290	640	580
21	1,090	25,400	33,500	8,060	4,670	14,500	24,900	8,380	8,380	1,210	640	560
22	2,910	19,500	24,900	7,900	7,700	12,800	20,900	9,020	6,700	1,190	640	510
23	15,400	15,300	19,000	7,140	10,000	10,800	19,000	8,380	5,470	1,210	630	463
24	23,900	12,300	15,800	6,280	11,200	9,690	16,700	7,290	4,720	1,150	580	454
25	18,800	10,400	13,200	5,400	15,200	9,020	14,500	7,140	4,240	1,140	600	463
26	11,800	9,020	11,200	5,410	31,900	10,400	12,300	6,280	3,900	1,100	620	454
27	9,020	8,060	10,000	4,840	51,700	10,800	10,800	5,340	4,880	1,040	630	520
28	7,000	7,440	9,020	4,480	44,200	9,690	9,690	4,970	6,420	975	630	490
29	5,730	6,850	8,700	4,120	-------	8,700	8,380	4,720	5,470	939	630	520
30	4,720	5,080	8,060	4,120	-------	8,060	7,750	4,600	4,360	869	600	560
31	4,240	-------	7,600	4,010	-------	7,900	-------	4,120	-------	812	590	-------

Daily discharge, in second-feet, of West Branch of Susquehanna River at Williamsport, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	560	427	384	384	1,480	2,800	21,900	14,000	12,800	1,660	1,520	975
2	540	436	490	344	1,320	2,660	32,300	11,900	10,400	1,640	1,430	963
3	510	445	472	336	1,040	2,570	34,600	10,800	8,700	1,970	1,320	999
4	472	445	472	360	1,010	2,590	36,300	10,400	7,440	2,350	1,290	1,250
5	445	445	520	400	812	2,550	46,100	9,020	6,420	4,240	1,240	2,040
6	427	418	690	454	767	2,280	39,800	8,060	5,730	3,680	1,250	1,060
7	427	360	927	409	670	1,990	31,200	7,440	6,050	2,950	1,160	1,590
8	427	392	1,080	384	520	2,420	26,400	9,190	16,400	2,480	1,140	1,540
9	436	400	1,170	376	610	3,930	23,900	24,900	22,900	2,140	1,280	1,130
10	427	384	1,330	384	510	2,480	23,900	22,400	17,600	2,350	1,660	975
11	418	392	1,260	400	520	2,040	27,000	19,900	12,800	2,890	2,800	869
12	418	400	1,250	418	540	1,820	25,400	17,600	10,000	3,050	3,360	778
13	418	400	1,020	384	560	1,590	20,400	18,100	8,060	2,780	3,460	734
14	409	418	951	360	620	1,700	15,800	35,300	6,700	2,190	2,610	690
15	409	427	823	344	715	1,840	18,600	45,400	5,860	1,940	1,940	660
16	409	436	620	344	756	2,160	11,500	34,000	6,000	1,680	1,560	650
17	409	454	519	352	1,190	2,500	9,690	27,500	6,280	1,500	1,330	767
18	400	481	472	376	3,200	2,550	8,700	23,900	5,470	1,330	1,170	823
19	384	500	472	418	3,570	2,630	7,600	19,900	4,600	1,340	1,080	869
20	328	490	463	384	3,360	2,860	6,700	17,600	4,120	1,370	1,090	975
21	336	481	463	352	5,130	3,360	6,000	21,900	3,570	1,840	1,100	1,120
22	344	472	418	320	5,470	4,010	5,470	22,900	3,360	3,640	987	1,220
23	368	409	400	312	4,720	5,220	7,260	33,400	3,050	4,360	939	1,040
24	392	418	409	312	3,790	6,850	10,000	56,200	2,760	3,570	915	1,590
25	360	463	384	328	3,360	9,020	10,000	50,900	2,910	3,260	892	1,370
26	360	320	392	360	3,050	12,300	10,400	41,000	2,530	3,150	823	1,300
27	360	282	427	436	2,910	14,000	15,600	32,300	2,250	2,350	823	1,200
28	400	275	418	570	2,820	16,200	21,900	25,400	2,090	2,040	834	1,250
29	418	275	418	670	-------	28,200	19,900	19,500	1,890	1,840	1,080	2,540
30	427	298	400	701	-------	36,800	17,100	15,800	1,810	1,640	1,040	1,970
31	445	-------	384	1,130	-------	28,000	-------	14,500	-------	1,500	999	-------
1931-32												
1	1,560	610	892	4,480	21,400	3,900	66,800	4,600	3,260	3,050	890	688
2	1,280	620	987	5,340	18,100	3,680	64,800	5,470	3,050	2,660	860	697
3	1,100	640	2,480	7,600	15,300	3,460	49,500	5,100	3,050	2,660	830	662
4	987	630	2,460	8,380	14,000	3,360	38,060	4,600	2,950	3,680	830	619
5	904	630	1,890	8,380	13,200	3,260	29,100	4,360	3,150	4,360	830	545
6	846	570	1,730	7,900	11,900	3,360	23,400	4,240	3,050	5,220	830	521
7	823	580	1,660	17,200	10,400	3,680	19,000	4,240	2,860	4,600	904	475
8	812	600	1,560	28,500	9,350	2,950	15,800	5,860	2,570	3,790	948	460
9	800	610	1,520	23,900	9,690	2,570	14,500	23,100	2,300	3,460	820	445
10	800	610	1,330	18,500	9,020	2,300	16,200	32,900	2,060	3,150	724	423
11	778	590	1,600	14,500	11,500	2,390	20,900	51,300	2,000	2,860	697	409
12	745	620	2,070	11,200	14,900	2,500	24,400	62,100	1,940	2,300	670	352
13	745	580	4,990	9,350	15,300	2,550	24,900	43,300	1,960	2,030	653	251
14	767	550	12,600	8,700	14,500	2,500	22,400	31,200	2,060	1,730	636	360
15	778	580	24,900	7,900	12,800	2,450	19,000	25,900	2,060	1,550	628	438
16	778	620	20,200	14,700	11,200	2,350	16,200	20,900	2,060	1,380	610	445
17	734	640	13,600	20,900	9,690	2,950	14,500	16,700	2,740	1,290	594	388
18	670	690	9,740	19,900	9,020	2,860	12,300	13,200	3,700	1,160	610	360
19	712	690	7,600	28,000	8,380	3,260	10,800	11,200	4,240	1,110	706	360
20	723	701	6,140	23,400	7,600	3,900	9,690	9,350	3,460	1,100	800	367
21	734	723	5,220	18,100	6,700	6,280	8,380	8,380	3,050	1,120	733	367
22	756	701	4,480	11,200	5,860	7,600	7,600	7,440	2,480	1,190	770	367
23	767	734	4,120	15,800	5,600	7,750	6,850	6,700	2,140	1,390	724	360
24	756	767	4,600	20,400	4,970	9,020	6,280	6,000	1,860	1,380	670	347
25	723	892	4,970	25,900	4,600	9,690	5,730	5,340	2,140	1,280	636	328
26	610	800	6,700	22,900	4,480	10,400	5,600	5,220	2,060	1,160	602	384
27	610	880	7,600	18,500	4,240	15,800	5,600	4,720	1,850	1,060	569	347
28	630	904	6,560	16,200	4,360	25,400	5,220	4,720	2,140	1,010	521	354
29	640	869	5,860	14,000	4,240	24,400	4,840	4,240	2,770	1,040	490	340
30	640	892	5,340	14,500	-------	22,400	4,480	3,900	4,240	948	490	347
31	640	-------	4,600	20,400	-------	30,800	-------	3,570	-------	926	577	-------

Note.—Discharge estimated for periods of ice effect, Dec. 1, 2, 4-6, 1929, Jan. 22-24, 26, 27, 29-31, Feb. 11, Nov. 27-30, 1930, Jan. 8-26, 1931, Mar. 12-16, 1932, and for period when clock stopped, Aug. 1, 1932. Records from chain-gage readings for periods recorder was not operating, Feb. 21-25, Mar. 26 to Apr. 14, Apr. 27 to May 7, 1931.

Monthly discharge, in second-feet, of West Branch of Susquehanna River at Williamsport, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	2,240	960	1,290	0.228	0.26
November	5,220	1,340	2,250	.397	.44
December	13,600	1,770	4,360	.769	.89
January	25,900	1,770	6,860	1.21	1.40
February	32,900	1,770	4,430	.781	.81
March	86,400	12,800	28,100	4.96	5.72
April	43,500	9,690	26,400	4.66	5.20
May	31,800	11,900	20,000	3.53	4.07
June	13,600	2,080	4,730	.834	.93
July	6,560	1,280	2,770	.489	.56
August	1,480	599	870	.153	.18
September	1,210	511	799	.141	.16
The year	86,400	511	8,600	1.52	20.62
1929-30					
October	23,900	755	5,970	1.05	1.21
November	37,400	3,460	9,960	1.76	1.96
December	36,300	4,120	11,600	2.05	2.36
January	36,800	4,010	12,900	2.28	2.63
February	51,700	2,760	8,760	1.54	1.60
March	33,500	7,900	17,200	3.03	3.49
April	37,400	7,750	15,700	2.77	3.09
May	9,020	3,150	5,350	.944	1.09
June	13,600	2,390	5,220	.921	1.03
July	4,360	812	2,060	.363	.42
August	778	510	615	.108	.12
September	650	454	562	.099	.11
The year	51,700	454	7,990	1.41	19.11
1930-31					
October	560	328	416	.073	.08
November	500	275	408	.072	.08
December	1,330	384	642	.113	.13
January	1,130	312	423	.075	.09
February	5,470	510	1,960	.346	.36
March	36,800	1,590	6,800	1.20	1.38
April	46,100	5,470	19,500	3.44	3.84
May	56,200	7,440	23,300	4.11	4.74
June	22,900	1,810	7,020	1.24	1.38
July	4,360	1,340	2,410	.425	.49
August	3,460	823	1,420	.250	.29
September	2,540	650	1,180	.208	.23
The year	56,200	275	5,470	.965	13.09
1931-32					
October	1,560	610	802	.141	.16
November	904	550	684	.121	.14
December	24,900	892	5,810	1.02	1.18
January	28,500	4,480	15,700	2.77	3.19
February	21,400	4,240	10,100	1.78	1.92
March	30,800	2,300	7,410	1.31	1.51
April	66,800	4,480	19,100	3.37	3.76
May	62,100	3,570	14,200	2.50	2.88
June	4,240	1,850	2,640	.466	.52
July	5,220	926	2,120	.374	.43
August	948	490	705	.124	.14
September	697	251	425	.075	.08
The year	66,800	251	6,630	1.17	15.91

CLEARFIELD CREEK AT DIMELING

LOCATION.—Water-stage recorder at highway bridge at Dimeling, Clearfield County, 400 feet below mouth of Little Clearfield Creek. Zero of gage is 1,145.56 feet above mean sea level. Chain gage at same datum used prior to Oct. 17, 1928.

DRAINAGE AREA.—370 square miles.

RECORDS AVAILABLE.—October, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 10,500 second-feet Apr. 5; maximum gage height (estimated), 18.4 feet, caused by ice, Feb. 27; minimum discharge, 13 second-feet Sept. 5 (gage height, 3.28 feet).

Maximum discharge during year ending Sept. 30, 1930, 7,630 second-feet Oct. 23 (gage height, 11.00 feet); minimum, 14 second-feet Aug. 13 (gage height, 3.26 feet).

Maximum discharge during year ending Sept. 30, 1931, 5,650 second-feet Apr. 4 (gage height, 9.99 feet); minimum, 8.8 second-feet Oct. 4, 12, 16 (gage height, 3.15 feet).

Maximum discharge during year ending Sept. 30, 1932, 5,130 second-feet Apr. 1 (gage height, 9.66 feet); minimum, 15 second-feet Sept. 26 (gage height, 3.22 feet).

1913-1932: Maximum discharge, 11,700 second-feet Mar. 13, 1920; maximum gage height, 18.5 feet, caused by ice, Mar. 11, 1920; minimum discharge, 6 second-feet Oct. 1, 9, 1926 (gage height, 3.15 feet).

REMARKS.—Records good except those for periods of ice effect, which are poor.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	46	67	492	110	160	1,340	492	980	450	150	61	16
2	42	71	430	110	150	1,180	430	915	355	129	53	15
3	54	58	338	140	140	980	430	2,100	338	96	56	19
4	54	72	302	140	130	1,700	410	1,340	320	85	46	17
5	51	74	235	110	140	2,000	2,800	1,040	285	161	56	13
6	58	64	184	120	150	2,800	5,800	1,040	250	150	78	17
7	61	64	129	150	160	2,320	2,440	1,520	220	119	64	17
8	58	83	119	160	170	1,800	1,520	1,340	195	129	74	18
9	57	77	208	130	200	1,340	1,260	980	184	109	85	51
10	56	83	172	140	200	820	1,600	850	172	105	68	42
11	56	88	161	300	200	820	1,700	702	150	89	48	27
12	56	78	150	280	180	1,700	1,520	620	150	81	37	19
13	62	77	161	170	160	2,680	1,260	592	140	67	37	48
14	62	78	172	120	140	4,760	1,120	648	119	109	61	51
15	53	85	195	120	130	4,440	1,340	915	109	95	51	71
16	57	88	220	140	120	3,720	2,560	850	104	81	46	64
17	61	74	208	160	140	2,320	3,720	702	100	69	37	58
18	77	64	250	565	160	1,600	2,920	565	102	67	29	43
19	129	91	220	1,340	260	1,120	2,100	980	85	58	35	65
20	95	250	172	1,180	440	760	1,600	1,180	88	53	29	60
21	88	302	129	730	400	450	2,220	2,000	81	48	29	43
22	71	235	195	470	280	492	2,800	1,520	78	43	35	35
23	64	195	180	360	220	515	1,900	1,120	98	42	27	27
24	64	172	160	280	220	980	1,420	850	129	42	33	28
25	64	150	140	260	360	882	2,100	702	150	140	27	32
26	58	129	130	220	1,500	790	2,000	648	220	250	28	24
27	68	109	130	220	6,000	730	1,260	515	161	208	36	27
28	95	109	120	240	3,040	702	1,040	592	172	140	29	30
29	119	119	130	220	-------	620	1,520	1,040	250	100	22	26
30	78	195	130	200	-------	592	1,260	850	220	88	21	34
31	71	-------	120	180	-------	675	-------	592	-------	72	17	-------

Daily discharge, in second-feet, of Clearfield Creek at Dimeling, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	39	411	385	523	208	1,750	576	352	133	96	29	27
2	169	356	378	1,430	204	2,020	1,040	330	122	110	29	54
3	3,410	494	378	1,110	210	1,540	1,080	288	112	110	27	46
4	1,710	645	385	901	224	1,210	863	258	107	98	27	64
5	549	472	422	656	243	1,040	692	227	100	89	26	56
6	345	402	485	645	230	1,040	610	214	96	134	25	46
7	270	352	590	604	216	1,040	1,060	225	106	582	29	34
8	230	315	1,020	593	202	1,620	1,110	217	109	305	22	29
9	194	282	1,010	711	198	1,500	914	187	107	178	24	27
10	165	264	754	717	197	1,140	818	169	160	136	22	25
11	129	273	616	549	198	1,110	717	158	248	114	22	21
12	102	261	507	736	206	1,280	616	150	215	100	26	19
13	101	238	728	1,320	217	1,010	539	146	148	94	18	18
14	96	475	2,210	1,320	232	1,010	492	144	115	96	22	20
15	92	1,440	1,580	1,110	220	818	453	178	102	100	24	23
16	95	1,040	1,210	895	213	717	772	176	104	96	28	22
17	80	2,120	1,080	686	213	650	1,390	162	1,160	82	24	30
18	86	2,890	1,280	514	234	621	1,170	152	988	71	32	25
19	78	1,930	1,840	390	260	837	1,110	195	559	66	31	21
20	76	1,390	2,050	350	325	692	946	578	373	60	34	26
21	73	1,040	1,280	320	415	549	799	394	279	56	23	21
22	1,110	805	946	300	590	458	1,180	279	227	54	19	16
23	6,500	645	818	283	740	394	1,010	236	190	61	19	17
24	2,330	566	674	270	870	385	837	207	169	60	24	18
25	1,210	477	576	257	3,490	385	729	194	158	54	22	23
26	850	420	560	251	6,810	507	633	176	148	49	29	23
27	604	458	497	249	5,220	477	533	160	146	44	24	22
28	463	469	582	247	2,730	407	468	162	131	41	24	19
29	364	425	560	239	-------	448	430	185	120	40	22	19
30	366	400	482	229	-------	680	385	176	104	38	22	28
31	528	-------	443	214	-------	633	-------	152	-------	35	22	-------
1930-31												
1	14	22	64	21	130	238	1,520	662	411	74	83	80
2	14	27	60	21	100	261	2,630	544	337	71	64	76
3	14	23	56	21	80	285	2,310	571	279	175	57	120
4	12	22	58	22	66	250	5,100	497	244	347	131	169
5	12	23	65	23	58	212	3,340	402	220	222	157	138
6	14	23	82	25	50	185	1,970	345	212	140	100	109
7	13	24	150	24	47	165	1,540	322	322	110	76	89
8	13	22	182	23	49	148	1,280	609	341	92	60	74
9	14	23	144	22	58	142	1,110	786	264	82	59	66
10	16	22	110	22	52	146	946	737	214	80	364	59
11	14	22	86	23	47	146	818	674	190	133	458	53
12	12	22	74	24	48	144	668	582	165	176	230	50
13	14	29	71	23	50	144	554	1,030	148	110	152	47
14	17	22	62	22	62	144	482	1,630	134	86	133	42
15	12	27	45	21	60	185	420	1,320	230	73	112	39
16	16	26	39	21	75	212	368	1,010	171	64	94	49
17	17	21	33	21	140	207	330	946	176	72	82	86
18	15	25	28	22	420	220	302	792	197	134	68	267
19	15	38	26	24	723	322	273	691	133	219	71	185
20	15	44	25	25	977	385	247	1,280	114	134	100	129
21	16	41	24	23	946	459	225	1,740	107	167	96	453
22	17	35	23	21	723	598	227	1,470	96	261	82	279
23	18	26	22	21	507	582	544	3,180	199	286	67	180
24	19	23	22	22	420	593	686	3,480	110	288	59	142
25	21	24	21	24	381	799	946	2,210	120	194	56	131
26	20	23	22	27	333	946	1,190	1,540	110	142	81	490
27	22	20	23	34	276	799	1,800	1,110	124	106	76	507
28	26	23	23	52	233	1,270	1,320	818	135	88	117	305
29	28	22	23	80	-------	2,630	1,040	621	110	82	150	212
30	29	35	23	160	-------	1,650	863	497	88	92	129	162
31	26	-------	22	150	-------	1,140	-------	448	-------	88	100	-------

Daily discharge, in second-feet, of Clearfield Creek at Dimeling, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	138	53	500	328	1,100	229	4,690	206	120	203	53	32
2	124	53	345	629	976	209	2,980	220	117	691	46	33
3	111	55	229	907	927	195	2,230	200	117	372	123	32
4	99	54	190	752	962	198	1,550	174	182	402	146	27
5	88	50	203	688	948	280	1,160	170	134	482	94	27
6	78	49	195	1,120	771	313	990	174	113	316	68	26
7	76	47	174	2,230	669	263	829	174	101	295	56	26
8	82	47	122	1,640	764	220	682	240	91	394	49	23
9	96	46	136	1,240	934	195	810	431	84	283	45	23
10	89	46	192	990	784	190	1,470	1,780	78	209	39	18
11	84	46	445	771	941	185	1,350	2,180	77	170	55	18
12	74	47	1,270	615	881	185	1,550	1,590	76	138	47	19
13	64	50	1,630	553	752	185	1,350	1,240	84	119	56	19
14	64	50	2,580	505	621	180	1,160	1,020	99	104	45	22
15	66	54	1,770	481	521	175	1,130	829	101	96	38	22
16	73	64	1,160	511	447	180	941	645	336	89	34	23
17	91	66	855	466	485	250	790	526	421	89	29	18
18	103	63	657	818	569	800	682	434	388	89	41	16
19	103	70	521	784	476	1,430	586	368	232	77	68	18
20	92	70	447	633	398	1,510	495	324	151	67	83	18
21	77	66	389	569	336	1,310	438	290	132	68	59	18
22	70	74	360	701	332	1,200	389	263	307	117	44	18
23	64	80	447	958	305	1,510	340	232	491	74	36	19
24	59	74	481	1,950	238	1,390	305	212	200	68	32	19
25	58	73	752	1,430	244	1,310	290	190	138	58	31	18
26	54	66	669	1,100	276	1,550	309	174	120	52	29	18
27	55	66	481	1,020	260	2,330	283	162	376	62	32	18
28	53	68	442	894	253	2,000	250	153	816	77	30	26
29	52	74	411	726	247	1,640	223	144	348	58	30	28
30	56	233	368	1,800	-------	1,760	203	136	217	63	30	25
31	54	-------	324	1,760	-------	3,580	-------	128	-------	58	30	-------

Note.—Discharge estimated for periods of ice effect, Dec. 23-31, 1928, Jan. 1-17, Jan. 23 to Feb. 27, Nov. 29 to Dec. 8, 1929, Jan. 19 to Feb. 23, Nov. 28, 29, Dec. 3-5, 14-31, 1930, Jan. 1 to Feb. 17, 1931, Mar. 8-18, 1932.

Monthly discharge, in second-feet, of Clearfield Creek at Dimeling, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	129	42	67.3	0.182	0.21
November	302	58	113	.305	.34
December	492	119	196	.530	.61
January	1,340	110	292	.789	.91
February	6,000	120	555	1.50	1.56
March	4,760	450	1,540	4.16	4.80
April	5,800	410	1,820	4.92	5.49
May	2,100	515	977	2.64	3.04
June	450	78	182	.492	.55
July	250	42	102	.276	.32
August	85	17	44.0	.119	.14
September	65	13	34.6	.094	.10
The year	6,000	13	492	1.33	18.07

Monthly discharge, in second-feet, of Clearfield Creek at Dimeling, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	6,500	38	723	1.95	2.25
November	2,800	238	725	1.96	2.19
December	2,210	378	849	2.29	2.64
January	1,430	214	601	1.62	1.87
February	6,810	197	904	2.44	2.54
March	2,020	385	902	2.44	2.81
April	1,390	385	799	2.16	2.41
May	578	144	220	.595	.69
June	1,160	96	228	.616	.69
July	582	35	105	.284	.33
August	34	18	24.9	.067	.08
September	64	16	28.0	.076	.08
The year	6,810	16	507	1.37	18.58
1930-31					
October	29	12	16.9	.046	.05
November	44	20	26.0	.070	.08
December	182	21	55.1	.149	.17
January	160	21	34.3	.093	.11
February	977	47	254	.686	.71
March	2,630	142	503	1.36	1.57
April	5,100	225	1,170	3.16	3.53
May	3,480	322	1,050	2.84	3.27
June	411	88	190	.514	.57
July	347	64	141	.381	.44
Auust	458	56	118	.319	.37
September	507	39	161	.435	.49
The year	5,100	12	309	.835	11.36
1931-32					
October	138	52	78.9	.213	.25
November	233	46	65.1	.176	.20
December	2,580	122	605	1.64	1.89
January	2,230	328	954	2.58	2.97
February	1,100	238	601	1.62	1.75
March	3,580	175	869	2.35	2.71
April	4,690	203	1,020	2.76	3.08
May	2,180	128	484	1.31	1.51
June	816	76	208	.562	.63
July	691	52	175	.473	.55
August	146	29	51.5	.139	.16
September	33	16	22.3	.060	.07
The year	4,690	16	428	1.16	15.77

SUSQUEHANNA BASIN—STATION NO. 19

DRIFTWOOD BRANCH OF SINNEMAHONING CREEK AT STERLING RUN

LOCATION.—Water-stage recorder at highway bridge at Sterling Run, Cameron County, 300 feet above mouth of Sterling Run. Zero of gage is 894.60 feet above mean sea level. Chain gage at same datum used prior to Mar. 18, 1930.

DRAINAGE AREA.—270 square miles.

RECORDS AVAILABLE.—September, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 7,420 second-feet Mar. 15 (gage height, 5.60 feet from graph based on gage readings); minimum, 31 second-feet Sept. 7 (gage height, 0.73 foot).

Maximum discharge during year ending Sept. 30, 1930, 5,660 second-feet Jan. 13 (gage height, 4.82 feet from graph based on gage readings); minimum, 0.4 second-foot Sept. 7, 12, 13, 14 (gage height, 0.62 foot).

Maximum discharge during year ending Sept. 30, 1931, 4,500 second-feet June 8 (gage height, 4.27 feet); minimum, 9.0 second-feet Nov. 15 (gage height, 0.70 foot).

Maximum discharge during year ending Sept. 30, 1932 (estimated), 9,550 second-feet May 8 (gage height, 6.47 feet); minimum, 1.2 second-feet Sept. 14 (gage height, 0.74 foot).

1913-1932: Maximum discharge, about 12,700 second-feet Feb. 12, 1925; maximum gage height, 10.4 feet, from graph based on gage readings affected by ice, Mar. 5, 1920; minimum discharge, that of September, 1930.

REMARKS.—Records poor. Diurnal regulation from power operations upstream.

Daily discharge, in second-feet, of Driftwood Branch of Sinnemahoning Creek at Sterling Run, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	43	92	2,290	130	70	1,040	865	1,240	206	375	58	35
2	40	92	2,020	120	65	865	810	920	181	315	56	35
3	40	105	1,770	120	65	588	700	1,040	156	215	56	35
4	40	119	1,240	130	65	1,040	865	700	141	189	61	34
5	43	108	755	150	65	1,460	1,460	865	133	229	56	32
6	50	98	520	240	80	1,860	2,290	810	133	215	50	34
7	58	95	442	500	100	1,860	1,610	1,100	112	294	50	31
8	50	98	388	440	100	1,040	1,240	1,040	98	1,240	48	40
9	45	98	363	340	90	810	920	865	95	810	48	164
10	43	92	289	340	80	865	1,040	681	85	1,610	48	95
11	45	92	244	320	65	489	1,310	537	82	1,770	45	61
12	40	95	215	260	65	520	1,770	442	79	1,170	61	45
13	40	116	206	200	55	1,170	1,690	473	79	755	53	50
14	50	112	206	170	55	4,820	1,310	755	76	755	45	61
15	50	98	211	180	60	6,530	1,170	3,410	72	520	45	66
16	45	95	198	200	65	5,660	1,860	2,840	61	351	40	61
17	50	98	172	280	80	3,800	2,110	1,770	61	244	40	119
18	72	102	369	1,610	100	2,110	1,540	1,240	61	215	40	112
19	215	194	305	4,820	80	1,460	1,170	1,240	56	194	39	66
20	112	700	268	3,220	70	1,100	980	1,100	79	152	37	56
21	85	520	170	1,610	65	920	1,690	1,540	63	126	37	50
22	72	429	140	1,040	65	1,170	2,110	1,690	198	112	35	40
23	66	363	130	810	65	1,770	1,380	1,460	339	102	37	40
24	66	299	130	624	65	2,290	1,170	1,100	1,540	95	98	40
25	66	253	130	442	100	1,860	1,040	755	512	112	48	40
26	112	198	150	327	1,610	1,860	2,110	554	305	119	40	40
27	102	176	170	133	3,220	1,770	1,860	442	206	88	40	40
28	92	172	225	120	1,860	1,380	1,310	351	554	85	39	40
29	105	164	253	100	-------	1,310	1,610	305	865	141	39	45
30	102	315	181	90	-------	1,380	1,460	263	571	85	37	45
31	92	-------	150	80	-------	865	-------	225	-------	66	37	-------
1929-30												
1	45	152	108	253	75	1,240	296	205	88	102	12	6.4
2	123	141	95	289	81	1,270	551	190	81	105	9.0	5.1
3	1,320	164	88	1,390	84	852	614	195	75	84	6.4	3.8
4	604	189	76	1,540	81	652	614	161	72	72	3.8	2.5
5	292	189	72	1,040	78	623	500	145	67	61	5.1	1.2
6	185	181	79	810	75	484	444	138	70	61	7.7	1.2
7	149	176	105	605	70	484	670	131	84	72	42	.7
8	126	172	520	720	64	1,200	840	128	72	58	43	9.0
9	105	149	700	1,530	58	1,310	730	117	67	48	39	6.4
10	92	141	588	2,620	56	1,000	710	107	159	45	11	3.8
11	82	149	504	2,060	53	1,380	680	104	183	43	2.5	1.2
12	72	149	388	1,260	64	1,580	623	97	115	40	1.2	.7
13	92	133	388	4,060	91	1,250	604	97	100	38	1.2	.4
14	92	205	643	4,850	104	1,000	586	97	88	43	3.8	.4
15	72	1,310	920	3,320	88	876	508	155	81	43	6.4	1.2
16	76	1,240	865	2,020	72	700	913	145	75	38	6.4	1.2
17	66	1,000	886	1,240	58	594	2,540	120	126	33	31	13
18	66	2,160	2,210	864	58	585	2,810	110	155	28	19	31
19	61	2,130	2,580	296	70	720	3,840	117	138	26	6.4	23
20	61	1,460	2,840	185	88	661	2,460	276	110	26	5.1	18
21	61	1,040	1,860	145	185	604	1,600	257	97	28	5.1	6.4
22	135	662	1,100	120	338	476	1,230	230	88	36	3.8	6.4
23	746	489	810	110	296	392	852	200	81	43	3.8	3.8
24	623	402	588	94	432	350	670	181	75	38	2.5	3.8
25	363	351	473	88	1,330	332	542	169	82	28	3.8	6.4
26	284	284	363	81	3,460	492	413	138	124	26	6.4	19
27	234	284	315	75	3,090	392	344	128	346	24	9.0	48
28	198	289	321	72	1,800	332	296	138	179	23	7.7	43
29	149	202	284	70	-------	320	257	128	125	21	6.4	23
30	133	133	253	67	-------	326	225	110	99	18	6.4	27
31	152	-------	234	64	-------	302	-------	97	-------	14	6.1	-------

Daily discharge, in second-feet, of Driftwood Branch of Sinnemahoning Creek at Sterling Run, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	26	40	119	18	78	100	1,190	710	375	56	70	40
2	19	36	98	23	56	94	2,060	632	290	53	58	47
3	16	36	77	26	67	88	2,080	645	235	56	72	205
4	16	36	75	26	50	84	2,290	517	200	119	147	124
5	14	36	72	28	40	81	2,380	460	177	75	90	100
6	14	36	94	45	31	78	1,920	399	161	64	70	78
7	16	36	149	33	26	72	1,640	371	1,480	61	61	67
8	12	21	128	31	24	70	1,130	2,480	4,170	58	53	58
9	16	21	81	31	26	70	1,210	2,380	2,700	50	241	53
10	16	32	58	35	26	72	1,840	1,680	1,440	53	366	50
11	19	36	48	33	23	75	1,660	1,180	830	84	196	50
12	23	40	53	36	26	75	1,160	980	526	64	136	50
13	21	40	61	31	31	75	798	1,460	371	53	107	45
14	18	40	50	26	33	81	605	2,060	279	50	94	43
15	19	38	53	23	31	117	472	1,600	230	48	78	45
16	19	40	50	21	28	117	378	1,100	215	43	70	53
17	21	40	43	21	28	110	326	1,250	190	45	64	81
18	28	40	43	21	78	107	284	952	145	53	58	72
19	33	38	28	24	145	142	240	852	124	50	58	58
20	36	36	26	28	279	134	215	816	110	58	58	53
21	38	36	26	26	235	174	190	750	128	96	53	50
22	31	36	24	24	195	279	194	623	100	160	48	50
23	31	36	23	23	165	332	357	1,500	94	97	45	45
24	33	33	23	26	142	468	332	2,700	91	81	43	45
25	31	31	23	33	128	825	364	2,300	84	70	43	45
26	38	33	23	50	117	939	941	1,730	75	58	67	57
27	40	40	23	78	110	926	2,200	1,240	70	56	56	72
28	40	36	21	120	107	1,630	1,620	841	67	58	56	55
29	50	24	19	246	-------	3,240	1,280	588	64	56	56	50
30	50	28	18	231	-------	2,180	918	436	61	151	50	45
31	45	-------	18	131	-------	1,290	-------	515	-------	99	45	-------
1931-32												
1	48	45	210	303	1,100	153	4,720	279	99	58	26	32
2	45	48	149	468	804	142	2,840	240	94	108	23	23
3	45	61	124	517	670	145	1,960	215	148	90	20	18
4	43	64	124	476	585	138	1,380	210	117	117	23	15
5	43	61	214	452	492	149	991	210	117	154	26	15
6	43	61	177	1,200	392	131	730	210	112	108	20	13
7	43	58	165	828	350	107	551	280	99	86	18	9.8
8	43	53	165	2,360	413	114	468	3,940	86	82	17	8.1
9	43	53	281	1,490	413	100	560	6,570	78	78	15	6.4
10	43	53	169	965	444	95	1,000	5,610	74	66	17	4.7
11	40	53	342	667	614	95	1,310	4,080	70	62	23	2.7
12	40	53	770	492	760	95	1,230	2,840	62	58	32	2.1
13	40	61	2,270	444	852	93	991	1,800	70	47	23	1.5
14	38	75	4,610	413	740	90	780	1,060	82	44	18	1.8
15	40	64	3,170	2,080	594	90	623	771	78	41	15	2.7
16	50	64	1,760	4,000	484	85	526	535	70	38	12	3.0
17	53	70	1,010	2,650	444	95	444	421	143	38	9.8	12
18	53	67	642	5,450	436	120	385	341	130	38	12	8.1
19	53	75	468	3,370	326	180	344	284	94	35	32	4.7
20	50	75	385	1,890	260	225	296	254	82	38	35	3.0
21	45	72	296	1,240	220	246	274	235	74	54	23	8.1
22	45	122	302	1,440	190	252	246	216	74	58	17	13
23	45	128	406	1,670	175	290	230	192	70	50	13	12
24	45	107	421	2,380	170	371	215	173	62	41	12	9.8
25	43	97	1,020	1,920	180	420	210	158	54	35	8.1	6.4
26	45	91	926	1,250	169	898	290	177	50	32	6.4	6.4
27	45	81	700	1,020	169	2,650	257	154	62	32	4.7	8.1
28	43	81	576	1,370	169	2,200	235	144	86	62	4.7	87
29	43	75	484	576	153	1,520	225	130	74	54	4.7	78
30	48	111	373	1,060	-------	1,340	240	117	54	38	72	44
31	48	-------	302	1,300	-------	2,700	-------	108	-------	35	47	-------

Note.—Records for Oct. 1 to Dec. 31, 1929, Jan. 1 to Mar. 18, May 27-31, July 19 to Nov. 30, Dec. 4-6, 10-31, 1930, Jan. 1-26, 1931, Mar. 3-13, 1932, are from chain-gage readings; remainder from chain-gage readings supplemented by recorder for changing stage. Discharge estimated for periods of ice effect, Dec. 21-27, 31, 1928, Jan. 1-17, Jan. 28 to Feb. 25, Dec. 1-8, 1929, Jan. 20 to Feb. 22, Dec. 21-31, 1930, Jan. 1-28, Feb. 1 to Mar. 12, 1931, Feb. 20-25, Mar. 9-19, 1932.

Monthly discharge, in second-feet, of Driftwood Branch of Sinnemahoning Creek at Sterling Run, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	215	40	68.7	0.254	0.29
November	700	92	186	.689	.77
December	2,290	130	461	1.71	1.97
January	4,820	80	618	2.29	2.64
February	3,220	55	304	1.13	1.18
March	6,530	489	1,800	6.67	7.69
April	2,290	700	1,420	5.26	5.87
May	3,410	225	1,020	3.78	4.36
June	1,540	56	240	.889	.99
July	1,770	66	411	1.52	1.75
August	98	35	47.2	.175	.20
September	164	31	55.1	.204	.23
The year	6,530	31	555	2.06	27.94
1929-30					
October	1,320	45	221	.819	.94
November	2,160	133	524	1.94	2.16
December	2,840	72	686	2.54	2.93
January	4,850	64	1,050	3.89	4.48
February	3,460	53	443	1.64	1.71
March	1,580	302	735	2.72	3.14
April	3,840	225	932	3.45	3.85
May	276	97	149	.552	.64
June	346	67	110	.407	.45
July	105	14	44.0	.163	.19
August	43	1.2	10.4	.039	.04
September	48	.4	10.6	.039	.04
The year	4,850	.4	409	1.51	20.57
1930-31					
October	50	12	26.7	.099	.11
November	40	21	35.0	.130	.14
December	149	18	53.1	.197	.23
January	246	18	49.9	.185	.21
February	279	23	83.4	.309	.32
March	3,240	70	456	1.69	1.95
April	2,380	190	1,080	4.00	4.46
May	2,700	371	1,150	4.26	4.91
June	4,170	61	503	1.86	2.08
July	160	43	70.2	.260	.30
August	366	43	87.4	.324	.37
September	205	40	62.9	.233	.26
The year	4,170	12	305	1.13	15.34
1931-32					
October	53	38	44.9	.166	.19
November	128	45	72.6	.269	.30
December	4,610	124	742	2.75	3.17
January	5,450	303	1,480	5.48	6.32
February	1,100	153	440	1.63	1.76
March	2,700	85	494	1.83	2.11
April	4,720	210	818	3.03	3.38
May	6,570	108	1,030	3.81	4.39
June	148	50	85.5	.317	.35
July	154	32	60.5	.224	.26
August	72	4.7	20.3	.075	.09
September	87	1.5	15.3	.057	.06
The year	6,570	1.5	444	1.64	22.38

NORTH BALD EAGLE CREEK AT MILESBURG*

LOCATION.—Chain gage at Pennsylvania Railroad bridge at Milesburg, Centre County, 1,000 feet above mouth of Spring Creek.

DRAINAGE AREA.—140 square miles.

RECORDS AVAILABLE.—February, 1911, to September, 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 5.77 feet (determined from hydrograph) Feb. 26, 27; minimum, —0.14 foot Aug. 21.

Maximum stage during year ending Sept. 30, 1930, 5.80 feet (determined from hydrograph) Oct. 22; minimum, —0.44 foot Aug. 12, 13.

Maximum stage during year ending Sept. 30, 1931, 10.0 feet (determined from hydrograph) May 8; minimum, —0.22 foot Oct. 4, Sept. 14.

Maximum stage during year ending Sept. 30, 1932, 6.1 feet (determined from hydrograph) Mar. 31; minimum, —0.43 foot Sept. 23, 27.

1911-1932: Maximum stage, 11.5 feet June 17, 1916; minimum, that of Aug. 12, 13, 1930.

REMARKS.—Gage-height record good. Discharge not determined owing to unstable conditions caused by a low cobble dam placed across the stream one-half mile downstream. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1928	Feet	Second-feet	1929	Feet	Second-feet	1930	Feet	Second-feet
Oct. 2	0.34	11.1	July 8	0.20	14.4	Nov. 5	0.02	3.81
2	.34	11.3	1930			1932		
1929			Aug. 21	—.30	1.36	May 14	1.71	320
Apr. 19	2.11	469	21	—.30	1.10	June 25	—.05	7.4
June 17	.30	24.5	Nov. 5	.02	3.41	Sept. 14	.25	1.0

Daily mean gage height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	0.25	0.38	1.56	0.68	1.36	1.94	1.04	1.81	1.51	0.42	0.08	—0.04
2	.21	.40	1.41	.74	1.36	1.58	.94	1.76	1.54	.38	.00	—.04
3	.27	.42	1.08	.62	1.36	2.01	.84	3.16	1.41	.28	—.04	—.04
4	.38	.44	.72	.48	1.34	2.44	.74	2.46	1.25	.22	—.03	—.04
5	.48	.38	.60	.46	1.32	3.77	2.21	2.06	1.10	.28	.02	—.04
6	.44	.32	.56	1.56	1.31	3.47	2.56	2.36	.88	.28	.04	—.04
7	.38	.36	.52	1.74	1.31	3.18	1.67	2.08	.70	.25	.04	—.06
8	.28	.36	.48	1.58	1.29	2.51	1.36	1.81	.58	.21	.01	.40
9	.22	.40	.46	1.48	1.26	1.56	-------	1.62	.54	.20	—.02	.66
10	.19	.41	.50	1.41	1.26	1.32	-------	1.41	.48	.19	—.04	.61
11	.22	.39	.56	1.38	1.26	1.74	-------	1.25	.41	.19	—.04	.39
12	.21	.36	.60	1.28	1.26	2.36	-------	1.20	.36	.16	—.04	.18
13	.14	.42	.62	1.26	1.26	2.56	-------	1.20	.54	.16	—.04	.14
14	.21	.40	.68	1.26	1.26	3.97	-------	1.58	.44	.16	—.01	.56
15	.26	.38	.74	1.21	1.26	3.95	2.00	1.54	.38	.16	—.02	.34
16	.41	.34	.78	1.16	1.26	3.14	-------	1.58	.34	.12	—.04	.25
17	.54	.31	.90	1.46	1.38	2.54	-------	1.50	.28	.10	—.04	.68
18	.51	.46	.81	2.08	1.62	1.94	-------	1.38	.38	.08	—.07	.56
19	.46	.67	.74	2.68	1.66	1.66	-------	2.00	.34	.06	—.04	.41
20	.41	.81	.66	2.26	1.62	1.48	1.88	2.41	.30	.06	—.04	.26
21	.37	.86	.62	1.70	1.61	1.38	2.11	2.60	.26	.13	—.09	.16
22	.54	.74	.61	1.52	1.56	1.74	1.87	2.64	.23	.10	—.04	.14
23	.64	.68	.58	1.46	1.56	1.61	1.70	2.06	.21	.08	—.03	.10
24	.58	.58	.56	1.41	1.64	1.54	1.56	1.71	.34	.05	.03	.07
25	.58	.56	.56	1.36	1.96	1.48	1.88	1.60	.54	.00	—.02	.04
26	.58	.56	.56	1.36	4.49	1.42	1.78	1.56	.42	.18	—.04	.02
27	.51	.58	.56	1.36	4.75	1.34	1.58	1.51	.27	.15	—.04	.04
28	.58	.68	.56	1.36	3.01	1.24	1.81	2.04	.78	.10	—.04	.04
29	.48	.71	.56	1.36	-------	1.14	2.28	2.28	.58	.26	—.04	.06
30	.41	1.01	.56	1.36	-------	1.06	2.02	2.02	.42	.16	—.04	.18
31	.38	-------	.56	1.36	-------	1.11	-------	1.74	-------	.12	—.04	-------

* Formerly published as Bald Eagle Creek at Milesburg.

Daily mean gage height, in feet, of North Bald Eagle Creek at Milesburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	0.20	1.12	1.95	1.14	1.13	1.81	1.02	0.97	0.33	0.28	-0.28	—0.31
2	2.80	1.06	1.10	1.22	1.11	1.68	1.04	.83	.29	.25	—.25	—.29
3	3.05	1.60	1.10	1.82	1.11	1.62	1.00	.73	.27	.18	—.25	—.24
4	1.60	1.61	1.10	1.72	1.11	1.54	.96	.69	.41	.25	—.27	—.22
5	1.21	1.41	1.10	1.54	1.11	1.40	.91	.65	.39	.29	—.29	—.20
6	.89	1.22	1.19	1.34	1.11	1.26	.88	.61	.36	.31	—.27	—.22
7	.76	1.12	1.10	1.22	1.11	1.21	2.04	.57	.66	.58	—.37	—.30
8	.61	1.02	1.10	1.29	1.11	2.46	1.67	.55	.55	.38	—.38	—.28
9	.52	.88	1.10	1.32	1.11	2.16	1.41	.51	.48	.25	—.38	—.24
10	.45	.82	1.20	1.23	1.11	1.86	1.28	.47	.83	.25	—.40	—.16
11	.40	.76	1.25	1.13	1.11	1.74	1.18	.43	.77	.12	—.42	—.16
12	.36	.75	1.37	1.27	1.11	1.64	1.12	.40	.59	.14	—.44	—.18
13	.37	.80	1.62	2.17	1.11	1.58	1.04	.37	.34	.12	—.44	—.14
14	.35	1.80	1.90	2.25	1.11	1.41	1.00	.77	.19	.00	.41	—.09
15	.33	2.15	1.85	1.96	1.14	1.24	1.01	.65	.18	.00	—.36	—.15
16	.28	1.68	1.70	1.76	1.12	1.18	2.32	.63	.17	—.05	—.34	—.16
17	.26	2.10	1.84	1.48	1.13	1.12	3.26	.49	.21	—.11	—.32	—.12
18	.28	3.40	3.02	1.28	1.17	1.18	2.54	.50	.68	—.11	—.28	—.11
19	.25	2.80	3.20	1.35	1.20	1.21	2.17	.65	.50	—.13	—.30	—.14
20	.20	2.09	2.66	1.77	1.47	1.08	1.77	1.02	.23	—.13	—.28	—.16
21	.23	1.66	1.90	1.97	1.89	1.00	1.70	.67	.17	—.15	—.30	—.19
22	3.00	1.42	1.62	1.97	1.51	.84	2.35	.60	.15	—.17	—.28	—.24
23	3.20	1.19	1.50	1.97	1.42	.81	1.97	.53	.17	—.17	—.26	—.26
24	1.85	1.12	1.34	1.97	1.77	.84	1.61	.47	.16	—.17	—.28	—.22
25	1.38	1.05	1.22	1.97	3.09	.96	1.45	.45	.16	—.19	—.28	—.18
26	1.11	1.00	1.14	1.95	4.47	1.34	1.27	.41	.17	—.21	—.26	—.12
27	.95	.95	1.16	1.82	3.55	1.11	1.17	.40	.17	—.23	—.28	—.06
28	.84	.92	1.22	1.65	2.48	1.08	1.17	.51	.12	—.25	—.32	—.08
29	.72	.98	1.24	1.52	-------	1.12	1.23	.47	.05	—.27	—.30	—.09
30	.82	1.00	1.15	1.35	-------	1.08	1.17	.41	.05	—.27	—.30	—.07
31	1.22	-------	1.18	1.19	-------	1.01	-------	.38	-------	—.29	—.30	-------
1930-31												
1	—.11	.02	.10	.00	.50	.48	2.90	1.16	1.21	.08	.04	—.03
2	—.15	.00	.26	.00	.50	.62	4.00	1.07	.93	.06	.04	—.07
3	—.20	.02	.24	.00	.48	.55	2.63	1.35	.80	.24	.04	.11
4	—.22	.00	.19	.04	.40	.47	3.90	1.04	.70	1.20	.04	.11
5	—.20	—.01	.24	.16	.35	.39	3.06	.97	.63	.60	.02	.09
6	—.18	—.04	.42	.27	.34	.32	2.29	.89	.57	.29	—.02	.04
7	—.18	—.02	.62	.47	.34	.24	2.11	1.10	1.05	.25	—.04	.01
8	—.20	—.02	.67	.44	.34	.27	1.79	5.92	.77	.18	—.02	—.04
9	—.18	—.05	.56	.44	.34	.43	1.60	3.22	.59	.14	.04	—.08
10	—.18	—.05	.42	.42	.34	.43	1.53	2.37	.48	.22	.59	—.10
11	—.16	.01	.27	.44	.38	.39	1.49	1.81	.40	.48	.71	—.11
12	—.16	.01	.14	.48	.42	.34	1.25	1.57	.37	.26	.27	—.12
13	—.12	.04	.08	.46	.58	.32	1.12	3.30	.33	.18	.14	—.17
14	—.15	.04	.04	.40	.79	.30	1.03	4.10	.32	.14	.10	—.20
15	—.16	.06	.04	.14	.80	.32	.93	2.86	.34	.12	.06	—.12
16	—.18	.02	—.07	.19	.88	.46	1.65	2.11	.91	.14	.02	—.12
17	—.18	.02	—.16	.32	1.32	.72	1.10	1.92	1.06	.13	.04	—.09
18	—.16	.13	—.16	.35	1.55	.84	.80	1.62	.67	.14	—.06	—.12
19	—.16	.11	—.14	.40	1.56	.88	.65	1.50	.50	.11	—.07	—.14
20	—.14	.11	—.14	.36	1.41	.95	.59	2.10	.38	.08	—.01	—.15
21	—.14	.04	—.14	.29	1.19	1.03	.54	2.25	.38	.05	.12	—.15
22	—.12	.02	.00	.24	1.08	1.07	.50	1.90	.30	.56	.09	—.11
23	—.12	—.02	.00	.19	.91	1.00	2.85	5.60	.25	.22	—.01	—.17
24	—.10	—.08	.00	.26	.91	.98	2.08	4.40	.51	.15	—.12	—.16
25	—.08	.00	.00	.33	.96	1.25	1.60	3.10	.27	.09	—.09	—.20
26	—.08	—.05	.00	.44	.82	1.28	2.10	2.40	.24	.08	.03	.04
27	—.06	—.12	.00	.59	.60	1.31	2.42	1.82	.22	.06	.13	.01
28	.06	—.14	.00	.77	.33	1.80	2.02	1.51	.19	.34	.32	—.01
29	.05	—.14	.00	.83	-------	3.60	1.80	1.31	.14	.11	.27	—.06
30	.04	—.14	.00	.71	-------	2.45	1.38	1.14	.11	.15	.07	—.09
31	.02	-------	.00	.53	-------	1.62	-------	1.52	-------	.07	.03	-------

Daily mean gage height, in feet, of North Bald Eagle Creek at Milesburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	0.13	—0.08	0.06	0.43	1.53	0.44	4.42	0.69	0.24	0.19	0.05	—0.01
2	—.15	—.07	.03	1.70	1.29	.41	2.97	.77	.21	.17	.02	—.02
3	—.19	—.07	.01	1.62	1.22	.39	2.38	.64	.33	.22	.11	—.01
4	—.22	—.09	—.02	1.33	1.32	.42	1.88	.57	.26	.40	.25	—.02
5	—.22	—.11	.00	1.23	1.40	.32	1.60	.52	.23	.37	.13	.00
6	—.18	—.12	.17	2.10	1.05	.68	1.44	.57	.19	.19	.04	—.04
7	—.20	—.14	.28	2.42	.99	.45	1.25	.56	.10	.11	—.03	—.15
8	—.17	—.18	.25	1.68	1.27	.62	1.14	.71	.08	.20	—.03	—.18
9	—.15	—.20	.12	1.37	1.24	.75	1.58	1.14	.08	.13	—.06	—.20
10	—.18	—.20	.04	1.05	1.22	.80	2.14	3.00	.10	.09	.01	—.20
11	—.20	—.18	.09	.93	1.29	.87	2.17	4.67	.04	.13	.10	—.21
12	—.22	—.16	.74	.80	1.23	.83	2.18	3.19	.09	.05	.07	—.25
13	—.22	—.12	.55	.75	1.07	.77	1.91	2.31	.31	.04	.02	—.29
14	—.10	—.10	1.18	.67	.96	.72	1.77	1.81	.28	.02	—.04	—.30
15	—.09	—.15	.92	.61	.88	.62	1.50	1.48	.23	—.04	—.08	—.31
16	—.15	—.13	.58	.56	.82	.57	1.33	1.28	.14	—.07	—.11	—.31
17	—.19	—.08	.45	.61	.87	.65	1.19	1.07	.20	—.09	—.13	—.29
18	—.22	—.06	.31	.70	.93	.97	1.07	.93	.14	—.09	.12	—.31
19	—.19	—.06	.27	.66	.81	1.10	.96	.82	.11	—.10	.23	—.34
20	—.17	—.05	.22	.58	.62	1.48	.88	.75	.09	.04	.04	—.39
21	—.14	—.04	.20	.57	.62	1.38	.80	.70	.09	.03	—.02	—.39
22	—.12	—.09	.19	.66	.60	1.47	.73	.62	.14	.89	—.04	—.39
23	—.15	—.12	.21	1.22	.45	1.46	.65	.57	.13	.30	—.05	—.42
24	—.16	—.10	.21	2.10	.47	1.49	.61	.54	.06	.15	—.10	—.43
25	—.19	—.12	.29	1.71	.60	1.43	.63	.47	.00	.08	—.14	—.42
26	—.25	—.10	.46	1.31	.48	1.49	.63	.45	.00	.03	—.15	—.43
27	—.23	—.09	.49	1.25	.50	1.88	.54	.43	.23	.85	—.10	—.40
28	—.20	—.05	.43	1.19	.48	2.18	.50	.40	.23	.48	—.11	—.27
29	—.15	—.02	.25	1.02	.46	2.04	.45	.34	.22	.23	—.12	—.29
30	—.13	.03	.11	2.50	-------	2.62	.42	.31	.11	.16	.13	—.29
31	—.07	-------	.13	1.91	-------	4.57	-------	.28	-------	.06	.01	-------

SUSQUEHANNA BASIN—STATION NO. 21

NORTH BALD EAGLE CREEK AT BEECH CREEK STATION*

LOCATION.—Water-stage recorder at highway bridge just below mouth of Beech Creek, at Beech Creek Station, Clinton County. Chain gage at same site and datum used prior to Jan. 9, 1930.

DRAINAGE AREA.—565 square miles.

RECORDS AVAILABLE.—June, 1910, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 10,100 second-feet Apr. 30, May 1 (gage height, 8.1 feet from graph based on gage readings); minimum, 140 second-feet Oct. 1-3 (gage height, 1.52 feet).

Maximum discharge during year ending Sept. 30, 1930, 5,720 second-feet Feb. 26 (gage height, 6.16 feet); minimum, 29 second-feet Aug. 22 (gage height, 1.21 feet).

Maximum discharge during year ending Sept. 30, 1931, 11,600 second-feet May 23 (gage height, 8.71 feet); minimum, 15 second-feet Jan. 9 (gage height, 1.12 feet).

Maximum discharge during year ending Sept. 30, 1932, 8,600 second-feet Apr. 1 (gage height, 7.53 feet); minimum, 97 second-feet Sept. 26 (gage height, 1.42 feet).

1910-1932: Maximum discharge (estimated), 18,600 second-feet June 17, 1916 (gage height, 12.5 feet); minimum, that of Jan. 9, 1931.

REMARKS.—Records good except those above 8,000 second-feet and below 130 second-feet, and for periods of ice effect, which are poor. Some regulation at low stages from operations of gristmills upstream.

* Formerly published as Bald Eagle Creek at Beech Creek Station.

Daily discharge, in second-feet, of North Bald Eagle Creek at Beech Creek Station, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	233	233	391	185	200	1,320	677	1,530	1,530	344	198	182
2	237	233	344	160	200	1,420	641	1,420	1,530	324	202	178
3	230	240	314	160	200	1,530	605	3,210	926	292	208	172
4	226	233	296	170	200	1,880	538	2,790	796	255	216	178
5	230	222	283	200	200	2,650	1,420	2,130	716	314	202	168
6	237	230	270	310	200	3,070	2,000	1,760	641	296	205	172
7	230	226	226	270	240	2,930	1,530	2,520	572	270	198	178
8	230	233	226	240	305	2,190	1,320	2,060	538	270	205	196
9	226	205	212	240	270	1,320	1,120	1,760	476	259	198	244
10	219	198	200	220	259	1,070	1,530	1,420	447	252	198	310
11	219	208	200	240	240	1,070	1,760	1,220	418	248	202	240
12	233	230	200	334	220	1,530	2,520	1,120	418	240	198	198
13	219	233	220	314	200	1,880	2,260	1,020	418	240	198	185
14	216	226	233	260	200	5,720	1,760	1,120	418	248	205	301
15	205	226	252	240	200	6,540	1,760	1,120	344	263	233	212
16	216	212	263	240	220	4,980	4,620	1,020	324	263	198	198
17	208	230	263	260	244	3,210	5,530	973	344	240	195	263
18	233	226	288	314	255	2,390	3,070	926	391	222	185	266
19	266	255	279	973	240	1,880	2,390	1,220	349	222	191	202
20	255	270	244	507	220	1,530	2,000	1,420	324	226	191	198
21	233	288	198	354	200	1,320	2,260	2,130	288	205	195	191
22	198	310	195	300	200	1,220	2,260	2,000	344	212	191	198
23	240	279	180	300	200	1,420	1,880	1,880	314	202	191	178
24	266	248	170	300	220	1,220	1,530	1,530	447	205	216	188
25	233	233	160	340	418	1,120	1,530	1,420	476	259	205	191
26	230	205	160	400	4,620	1,070	2,000	1,070	359	283	195	198
27	219	233	160	360	3,650	973	1,640	1,220	301	237	198	185
28	226	226	160	520	2,260	882	1,530	5,340	447	222	191	185
29	230	196	180	280	-------	796	2,000	4,280	476	249	198	185
30	226	240	191	240	-------	754	1,760	2,790	364	252	191	205
31	226	-------	198	220	-------	754	-------	2,000	-------	219	188	-------
1929-30												
1	188	598	490	796	380	2,060	611	673	351	247	169	145
2	890	526	480	716	380	2,130	673	642	322	316	161	153
3	3,280	820	470	1,240	390	1,700	665	566	310	252	161	161
4	1,040	873	470	1,090	410	1,430	634	494	294	232	165	145
5	592	731	495	890	400	1,270	611	494	288	213	157	134
6	430	663	530	864	390	1,170	652	480	300	268	161	137
7	364	598	592	864	320	1,150	1,500	473	426	403	157	123
8	305	545	605	882	330	2,870	1,310	426	316	262	157	141
9	288	513	545	723	300	2,390	1,150	426	310	227	157	134
10	263	464	495	670	330	1,940	1,040	466	632	218	157	126
11	263	464	482	551	300	1,880	964	452	581	204	149	120
12	248	441	435	627	300	1,820	890	432	439	204	149	116
13	240	413	459	1,120	270	1,480	846	420	394	200	138	120
14	233	418	890	1,350	430	1,310	812	394	357	242	141	134
15	244	1,060	1,020	1,260	390	1,150	745	596	339	213	153	134
16	233	864	754	1,060	350	1,060	1,620	480	316	204	145	134
17	230	973	864	846	330	982	3,500	436	339	182	192	126
18	226	3,720	1,120	787	340	992	3,000	287	603	177	149	134
19	219	2,860	2,130	630	402	1,100	2,390	432	494	195	137	130
20	216	1,940	2,520	570	498	917	1,820	761	413	195	137	123
21	205	1,530	2,320	520	746	864	1,510	705	375	186	137	120
22	578	1,220	1,360	500	771	795	1,320	673	357	190	86	123
23	3,070	1,020	1,060	490	762	745	1,520	627	322	213	134	120
24	1,940	908	920	470	855	737	1,350	596	316	195	134	123
25	964	829	830	440	2,046	721	1,190	559	310	186	137	120
26	739	723	770	430	4,490	935	1,040	494	283	182	134	141
27	641	677	716	420	4,460	795	917	452	305	169	145	153
28	565	663	754	410	2,860	729	820	452	278	177	137	137
29	447	513	796	400	-------	713	761	452	252	177	137	126
30	447	495	779	390	-------	689	689	413	232	165	137	120
31	648	-------	708	380	-------	658	-------	381	-------	161	137	-------

Daily discharge, in second-feet, of North Bald Eagle Creek at Beech Creek Station, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	116	109	149	50	145	247	2,120	873	1,100	216	195	172
2	112	96	116	46	141	232	4,500	787	899	225	188	176
3	109	112	102	45	130	218	2,860	837	770	285	188	216
4	102	106	100	46	116	218	4,210	705	685	846	203	212
5	106	109	116	50	106	186	3,500	634	632	444	199	188
6	120	112	145	70	160	177	2,520	596	581	316	180	172
7	109	106	195	72	98	157	2,000	566	654	276	169	172
8	112	106	213	57	96	190	1,640	4,030	654	261	169	161
9	112	102	186	37	94	222	1,370	3,210	552	242	208	154
10	116	116	145	36	93	190	1,260	2,260	491	318	478	141
11	116	106	134	37	94	165	1,190	1,700	445	432	617	141
12	106	112	126	38	97	165	1,000	1,400	414	295	327	138
13	126	112	126	38	105	145	882	2,380	389	252	238	138
14	120	112	116	35	125	173	795	4,800	366	233	225	158
15	112	112	99	30	150	218	713	3,500	378	220	203	155
16	123	96	90	26	182	247	642	2,520	484	216	199	141
17	123	116	72	26	208	267	596	2,130	594	212	191	176
18	126	130	67	26	566	267	552	1,640	407	229	188	167
19	120	120	66	27	544	345	501	1,390	349	212	188	154
20	116	112	66	27	466	339	466	1,760	311	203	195	144
21	109	102	65	26	363	345	420	2,130	316	233	184	141
22	116	106	63	25	316	394	495	1,790	290	432	180	141
23	109	102	62	25	272	394	1,840	9,400	290	301	176	141
24	106	102	61	27	305	432	3,290	7,020	360	261	172	135
25	102	99	61	32	305	529	1,690	4,280	290	233	169	133
26	102	106	61	42	300	673	1,300	3,130	261	225	176	190
27	116	96	61	72	257	665	1,760	2,320	266	203	195	195
28	109	43	62	124	232	927	1,450	1,820	256	233	233	161
29	112	84	64	190	-------	3,050	1,290	1,530	242	212	242	148
30	112	106	70	157	-------	2,200	1,050	1,370	229	216	212	135
31	112	-------	54	169	-------	1,510	-------	1,390	-------	216	184	-------
1931-32												
1	131	135	212	264	1,260	361	7,540	521	347	296	191	150
2	131	135	191	822	1,090	347	3,860	572	337	377	188	137
3	128	138	161	899	954	342	2,860	476	332	328	194	134
4	125	138	154	663	935	332	2,070	448	332	376	246	131
5	128	141	169	578	954	337	1,710	436	342	425	205	141
6	122	131	165	963	771	356	1,430	430	328	361	184	134
7	125	131	158	1,880	716	382	1,210	442	314	337	177	125
8	135	135	151	1,390	812	375	1,040	549	305	361	170	122
9	148	135	158	1,090	787	350	1,170	935	292	318	170	119
10	141	131	169	864	731	330	1,770	2,610	283	292	170	114
11	135	131	221	700	796	340	1,710	5,480	274	287	212	108
12	128	135	322	592	787	320	2,010	4,700	278	266	184	111
13	128	141	352	532	723	310	1,830	3,000	318	250	163	108
14	122	144	588	495	655	300	1,580	2,130	309	238	157	108
15	135	138	531	482	619	290	1,340	1,630	278	227	153	111
16	138	138	327	470	578	292	1,140	1,300	297	223	147	111
17	131	148	285	442	578	318	992	1,080	487	223	147	108
18	128	144	252	538	592	356	880	926	408	212	149	105
19	125	144	229	558	532	392	804	783	347	209	262	105
20	122	138	203	532	488	619	723	716	323	234	191	105
21	125	141	191	519	430	612	670	663	300	242	160	105
22	125	141	188	572	448	634	627	619	300	323	147	105
23	125	144	188	752	414	746	585	558	287	299	144	105
24	125	151	199	1,530	366	754	558	519	270	234	141	108
25	122	151	220	1,240	392	746	532	476	254	209	137	108
26	125	148	225	1,010	382	796	526	448	266	198	128	105
27	125	148	176	1,000	371	1,140	501	430	352	214	131	111
28	128	148	180	864	382	1,410	465	419	553	442	144	125
29	131	148	199	746	382	1,400	436	398	352	255	141	122
30	131	169	180	1,440	-------	1,940	419	382	305	218	238	119
31	135	-------	180	1,660	-------	5,180	-------	361	-------	194	198	-------

Note.—Discharge estimated for period of unsatisfactory gage-height record, Nov. 6, 1928, and for periods of ice effect, Dec. 10-13, 23-29, 1929, Jan. 2-5, 8-11, 14-17, 22-31, Feb. 1, 7, 11-16, 19-24, Nov. 30 to Dec. 6, Dec. 23-26, 1929, Jan. 19 to Feb. 18, Nov. 28, Dec. 4, 18-28, 31, 1930, Jan. 1-4, 10-19, 21-26, Feb. 4-15, 1931, Mar. 8-15, 1932. Records from chain gage readings for Oct. 1 to Dec. 31, 1929, Jan. 1-9, Jan. 19 to Feb. 19, Apr. 28-30, May 8-9, 1930.

Monthly discharge, in second-feet, of North Bald Eagle Creek at Beech Creek Station, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	266	198	229	0.405	0.47
November	310	136	232	.411	.46
December	391	160	231	.409	.47
January	973	160	298	.527	.61
February	4,620	200	581	1.03	1.07
March	6,540	754	1,990	3.52	4.06
April	5,530	538	1,910	3.38	3.77
May	5,340	926	1,850	3.27	3.77
June	1,530	288	525	.929	1.04
July	344	202	252	.446	.51
August	233	188	200	.354	.41
September	310	126	202	.358	.40
The year	6,540	126	709	1.25	17.04
1929–30					
October	3,280	188	653	1.16	1.34
November	3,720	413	935	1.65	1.84
December	2,520	435	866	1.53	1.76
January	1,350	380	722	1.28	1.48
February	4,490	300	869	1.54	1.60
March	2,870	658	1,260	2.23	2.57
April	3,500	611	1,240	2.19	2.44
May	761	381	507	.897	1.03
June	632	232	362	.641	.72
July	403	161	215	.381	.44
August	192	86	147	.260	.30
September	161	116	132	.234	.26
The year	4,490	86	657	1.16	15.78
1930–31					
October	126	102	113	.200	.23
November	130	43	105	.186	.21
December	213	54	100	.177	.20
January	190	25	55.4	.098	.11
February	566	93	218	.386	.40
March	3,050	145	500	.885	1.02
April	4,500	420	1,510	2.67	2.98
May	9,400	566	2,390	4.23	4.88
June	1,100	229	465	.823	.92
July	846	203	281	.497	.57
August	617	169	222	.393	.45
September	216	135	158	.280	.31
The year	9,400	25	511	.904	12.28
1931–32					
October	148	122	129	.228	.26
November	169	131	141	.250	.28
December	588	151	230	.407	.47
January	1,530	264	840	1.49	1.72
February	1,260	366	653	1.16	1.25
March	5,180	290	723	1.28	1.48
April	7,540	419	1,430	2.53	2.82
May	5,480	361	1,110	1.96	2.26
June	553	254	326	.577	.64
July	442	194	280	.496	.57
August	262	128	175	.310	.36
September	150	105	117	.207	.23
The year	7,540	105	512	.906	12.34

PINE CREEK AT CEDAR RUN

LOCATION.—Water-stage recorder at highway bridge at Cedar Run, Lycoming County. Zero of gage is 781.96 feet above mean sea level. Chain gage at same site and datum used prior to Feb. 13, 1930.

DRAINAGE AREA.—590 square miles.

RECORDS AVAILABLE.—July, 1918, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 12,200 second-feet Mar. 14, 15 (gage height, 7.16 feet, from graph based on gage readings); minimum, 5.1 second-feet Sept. 6 (gage height, 0.86 foot).

Maximum discharge during year ending Sept. 30, 1930, 5,840 second-feet Nov. 18 (gage height, 5.0 feet, from graph based on gage readings); minimum, 28 second-feet Sept. 7 (gage height, 0.94 foot).

Maximum discharge during year ending Sept. 30, 1931, 6,120 second-feet May 24 (gage height, 5.09 feet); minimum, 10 second-feet Nov. 28 (gage height, 0.80 foot).

Maximum discharge during year ending Sept. 30, 1932, 8,470 second-feet Apr. 1 (gage height, 5.91 feet); minimum, 15 second-feet Sept. 16 (gage height, 0.83 foot).

1918-1932: Maximum discharge (estimated), 16,700 second-feet Apr. 6, 7, 1924 (gage height, 8.6 feet, from graph based on gage readings); minimum, that of Sept. 6, 1929.

REMARKS.—Records good except those for high stages, which are fair, and those for periods of ice effect, which are poor.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1928–29												
1	64	99	1,500	383	550	1,500	1,180	2,040	1,300	179	39	14
2	67	99	1,120	472	500	1,240	1,070	1,880	1,020	277	39	14
3	61	124	970	370	460	970	970	3,820	825	184	39	7.7
4	61	129	872	364	400	970	921	2,970	688	148	39	7.1
5	61	129	647	383	400	1,430	1,360	2,570	647	174	41	6.4
6	80	129	568	970	420	1,640	9,290	2,040	568	168	35	5.8
7	77	124	568	1,070	600	1,500	6,100	2,380	472	139	33	11
8	67	129	568	821	700	1,180	3,390	1,880	424	179	31	27
9	55	129	501	800	650	1,070	2,570	1,720	364	168	41	92
10	46	120	480	700	600	778	2,380	1,430	318	210	39	277
11	43	124	472	650	550	778	2,770	1,180	289	312	35	110
12	41	115	444	550	460	1,240	4,280	1,120	265	189	35	55
13	43	134	417	550	420	2,770	3,820	1,240	248	153	37	61
14	61	139	350	550	400	7,580	2,770	1,180	232	232	31	67
15	67	129	350	550	400	10,200	2,290	1,960	232	179	31	67
16	61	120	318	650	400	9,870	3,390	2,120	221	129	27	67
17	55	115	312	1,200	420	6,980	3,180	2,040	189	106	25	58
18	110	120	444	2,400	420	4,050	2,570	1,640	174	103	20	70
19	417	265	444	2,290	440	2,770	2,380	2,040	168	110	20	64
20	158	647	397	2,040	420	2,200	3,820	1,960	158	95	14	49
21	129	294	360	1,640	400	1,880	7,580	2,380	139	73	14	39
22	103	487	320	1,360	400	2,040	8,140	2,290	163	67	14	35
23	110	444	320	1,120	400	2,770	5,030	1,880	174	61	14	31
24	120	431	420	921	400	2,970	3,390	1,720	294	55	27	27
25	120	350	472	700	400	2,570	2,570	1,500	232	67	20	27
26	124	331	444	600	1,960	2,970	3,180	1,120	210	80	23	27
27	139	283	431	550	2,970	2,570	2,380	970	179	88	20	27
28	129	265	377	500	2,380	2,200	2,040	2,040	226	55	17	23
29	134	248	337	460	-------	1,720	2,970	3,180	458	55	14	33
30	120	357	306	500	-------	1,430	2,380	2,290	232	61	14	49
31	106	-------	324	550	-------	1,300	-------	1,720	-------	55	12	-------

Daily discharge, in second-feet, of Pine Creek at Cedar Run, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	76	366	340	520	237	2,240	660	546	286	753	73	37
2	190	302	321	565	247	2,370	869	583	252	1,100	67	39
3	2,200	334	308	1,590	236	1,920	863	574	228	863	62	41
4	1,230	408	308	1,390	334	1,610	918	495	208	640	60	39
5	690	340	321	1,190	297	1,410	885	438	194	511	60	37
6	478	314	340	1,110	263	1,220	885	416	190	430	57	34
7	366	291	387	1,090	237	1,450	2,200	401	258	401	55	32
8	291	286	445	1,300	228	3,540	2,420	478	218	340	50	44
9	242	286	387	1,830	218	3,040	2,000	462	208	291	53	39
10	199	269	353	2,090	218	2,450	1,750	423	903	263	50	37
11	177	269	346	1,890	223	2,460	1,550	401	1,200	237	50	34
12	164	258	340	1,950	232	2,440	1,390	379	742	223	41	32
13	160	247	387	3,210	242	2,030	1,460	353	602	208	41	32
14	164	274	486	4,520	297	2,080	1,470	340	495	213	46	49
15	149	885	1,360	4,520	280	1,680	1,370	589	1,500	208	50	53
16	130	1,410	973	3,310	258	1,590	1,630	650	353	177	55	71
17	126	1,370	995	2,320	247	1,520	2,770	528	455	160	55	78
18	115	3,720	2,280	1,840	247	2,250	3,210	486	1,480	145	60	67
19	112	4,520	1,880	1,410	280	3,210	3,110	495	1,890	137	53	57
20	109	2,730	1,700	1,230	327	2,730	2,560	710	1,330	130	48	46
21	102	2,160	1,390	1,070	387	2,270	2,190	611	1,060	126	46	41
22	133	1,650	1,250	962	630	1,700	1,840	592	764	119	44	37
23	2,370	1,250	1,050	808	841	1,390	1,480	556	630	137	44	35
24	1,560	1,070	918	650	1,030	1,240	1,270	520	528	130	50	34
25	1,090	940	863	556	2,160	1,120	1,100	511	528	109	53	35
26	852	808	808	445	4,410	1,240	951	445	394	99	55	48
27	680	720	764	372	3,320	1,040	830	401	2,450	92	53	105
28	511	690	775	321	2,720	896	731	379	1,870	89	46	130
29	379	520	690	291	-------	819	630	423	1,180	84	44	78
30	379	394	630	263	-------	775	583	353	830	78	39	57
31	366	-------	546	237	-------	710	-------	321	-------	76	37	-------
1930-31												
1	48	44	78	28	144	140	1,960	1,220	1,070	145	122	50
2	46	41	121	28	120	138	3,010	1,120	852	141	109	58
3	41	39	102	28	101	137	2,560	1,130	700	253	115	403
4	39	39	96	29	98	137	2,920	962	592	519	126	353
5	39	41	99	32	95	138	2,730	863	511	244	115	208
6	37	39	96	35	94	140	2,560	797	453	232	96	149
7	37	37	122	33	93	143	2,320	720	3,480	218	81	115
8	37	37	156	29	93	150	2,090	1,030	4,580	203	76	96
9	37	46	141	28	94	180	2,420	1,270	3,520	281	134	81
10	37	44	119	28	97	180	3,680	1,450	2,420	232	377	76
11	39	44	96	29	94	160	5,660	1,520	1,800	314	214	70
12	39	44	89	30	93	146	4,480	1,510	1,360	232	152	65
13	37	46	89	30	97	138	3,110	2,000	1,060	173	126	62
14	37	46	84	29	100	147	2,560	4,400	852	152	109	57
15	37	46	80	29	104	182	2,140	3,720	764	149	96	57
16	37	46	41	29	110	186	1,720	2,640	841	133	84	89
17	39	48	38	28	150	182	1,390	2,820	630	126	76	109
18	44	50	37	28	225	177	1,170	2,240	495	122	67	132
19	44	50	37	28	285	194	973	1,890	401	112	70	133
20	41	48	36	28	350	203	830	1,620	346	115	65	99
21	41	44	35	27	290	282	690	1,790	314	413	60	84
22	39	46	34	27	243	567	620	1,480	280	1,220	57	78
23	39	44	33	27	210	723	968	3,890	295	609	55	73
24	41	41	32	27	185	1,100	896	5,700	483	372	50	-------
25	44	41	32	30	170	1,480	830	4,640	297	286	48	65
26	46	35	32	49	157	1,550	914	4,160	242	228	46	73
27	46	28	32	75	145	1,430	1,550	3,210	213	182	57	76
28	46	27	32	120	142	2,000	1,590	2,380	186	156	81	76
29	46	25	21	180	-------	3,310	1,620	1,760	173	137	84	67
30	48	34	31	170	-------	2,560	1,470	1,410	160	141	67	60
31	46	-------	30	157	-------	1,840	-------	1,360	-------	145	57	-------

Daily discharge, in second-feet, of Pine Creek at Cedar Run, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	55	41	86	334	1,420	394	7,530	456	306	108	39	30
2	53	41	106	381	1,290	359	5,420	514	295	178	34	28
3	50	44	81	602	1,190	340	5,420	441	306	158	39	26
4	50	44	78	528	1,120	340	4,400	412	306	147	44	25
5	50	46	96	478	973	334	3,210	405	295	191	46	24
6	48	44	115	974	808	359	2,470	398	272	143	41	21
7	48	44	100	2,730	731	440	1,980	498	250	123	34	20
8	50	39	70	2,190	780	460	1,680	1,180	224	217	32	20
9	50	39	53	1,730	896	550	1,660	2,470	209	180	30	19
10	48	39	128	1,370	753	350	2,090	3,680	200	127	32	18
11	46	39	157	1,090	1,830	340	2,820	6,470	186	102	39	18
12	44	39	274	885	2,440	340	3,410	5,840	177	92	39	17
13	41	44	400	909	2,240	335	2,920	3,900	195	79	39	17
14	41	53	1,350	863	1,890	320	2,350	3,020	195	74	34	17
15	41	60	1,440	1,980	1,580	300	1,860	2,730	186	68	30	17
16	46	55	1,050	3,620	1,360	320	1,550	2,030	253	68	26	17
17	50	57	786	2,820	1,170	270	1,280	1,620	255	68	25	17
18	48	62	611	3,010	1,050	430	1,110	1,290	224	62	34	18
19	46	60	495	2,450	841	520	963	1,100	168	57	54	19
20	44	60	416	2,040	753	640	845	941	155	64	65	15
21	44	57	366	1,700	620	458	761	824	147	85	48	18
22	41	55	327	1,800	620	498	680	720	135	85	37	18
23	39	67	464	1,680	537	730	613	622	123	74	32	22
24	39	81	416	2,140	462	680	567	539	109	59	30	28
25	41	78	646	1,920	470	611	539	481	102	55	26	24
26	41	62	546	1,660	416	1,120	585	489	98	48	25	22
27	39	62	503	1,610	423	2,170	539	514	116	48	24	26
28	39	62	511	1,390	453	2,090	489	456	127	50	22	60
29	39	60	462	1,180	401	1,830	441	412	123	48	22	103
30	44	73	436	1,710	-------	1,980	420	370	102	46	34	77
31	46	-------	353	1,590	-------	2,740	-------	344	-------	41	81	-------

Note.—Discharge estimated for periods of ice effect, Dec. 21-24, 1928, Jan. 9-18, Jan. 25 to Feb. 25, Nov. 30 to Dec. 15, Dec. 21-26, 1929, Jan. 5, 6, Jan. 26 to Feb. 22, Dec. 17-31, 1930, Jan. 1 to Mar. 14, Dec. 7, 8, 1931, Mar. 7-19, 1932.

Monthly discharge, in second-feet, of Pine Creek at Cedar Run, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	417	41	98.0	0.166	0.19
November	647	99	220	.373	.42
December	1,500	306	511	.866	1.00
January	2,400	364	860	1.46	1.68
February	2,970	400	676	1.15	1.20
March	10,200	778	2,750	4.66	5.37
April	9,290	921	3,340	5.66	6.32
May	3,820	1,120	1,950	3.31	3.82
June	1,300	139	370	.627	.70
July	312	55	134	.227	.26
August	41	12	27.1	.046	.05
September	277	5.8	48.3	.082	.09
The year	10,200	5.8	916	1.55	21.10

Monthly discharge, in second-feet, of Pine Creek at Cedar Run, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	2,370	76	509	0.863	0.99
November	4,520	247	969	1.64	1.83
December	2,280	308	772	1.31	1.51
January	4,520	237	1,450	2.46	2.84
February	4,410	218	757	1.28	1.33
March	3,540	710	1,820	3.08	3.55
April	3,210	583	1,520	2.58	2.88
May	710	321	479	.812	.94
June	2,450	190	774	1.31	1.46
July	1,100	76	276	.468	.54
August	73	37	51.5	.087	.10
September	130	32	49.9	.085	.09
The year	4,520	32	785	1.33	18.06
1930-31					
October	48	37	41.1	.070	.08
November	50	25	41.3	.070	.08
December	156	30	68.1	.115	.13
January	180	27	47.6	.081	.09
February	350	93	149	.253	.26
March	3,310	137	647	1.10	1.27
April	5,660	620	2,050	3.47	3.87
May	5,700	720	2,150	3.64	4.20
June	4,580	160	979	1.66	1.85
July	1,220	112	258	.437	.50
August	377	46	99.1	.168	.19
September	403	50	108	.183	.20
The year	5,700	25	554	.939	12.72
1931-32					
October	55	39	45.2	.077	.09
November	81	39	53.4	.091	.10
December	1,440	53	417	.707	.82
January	3,620	324	1,600	2.71	3.12
February	2,440	401	1,020	1.73	1.87
March	2,740	300	726	1.22	1.42
April	7,530	420	2,020	3.42	3.82
May	6,470	344	1,460	2.47	2.85
June	306	102	185	.331	.37
July	217	41	95.0	.161	.19
August	54	22	35.1	.059	.07
September	103	17	26.8	.045	.05
The year	7,530	17	639	1.08	14.77

SUSQUEHANNA BASIN—STATION NO. 23

LYCOMING CREEK NEAR TROUT RUN

LOCATION.—Chain gage at highway bridge 2¾ miles upstream from Trout Run, Lycoming County. Zero of gage is 693.4 feet above mean sea level.

DRAINAGE AREA.—185 square miles.

RECORDS AVAILABLE.—December, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 4,580 second-feet Mar. 14 (gage height, 8.42 feet from graph based on gage readings); minimum, 12 second-feet Sept. 5 (gage height 1.50 feet).

Maximum discharge during year ending Sept. 30, 1930, 2,460 second-feet Mar. 8 (gage height, 6.8 feet from graph based on gage readings); minimum, 14 second-feet Aug. 13 (gage height, 1.54 feet).

Maximum discharge during year ending Sept. 30, 1931, 2,570 second-feet May 23 (gage height, 6.74 feet); minimum, 11 second-feet Sept. 12 (gage height, 1.58 feet).

Maximum discharge during year ending Sept. 30, 1932, 2,500 second-feet Mar. 31 (gage height, 6.6 feet from graph based on gage readings); minimum, 6.0 second-feet Sept. 20-22 (gage height, 1.45 feet).

1913-1932: Maximum discharge (estimated), 18,700 second-feet Nov. 16, 1926 (gage height, 16.3 feet from flood marks); minimum, that of Sept. 20-22, 1932.

REMARKS.—Records good except those for high stages, which are fair, and those for periods of ice effect, which are poor.

Daily discharge, in second-feet, of Lycoming Creek near Trout Run, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	35	29	312	69	90	517	410	757	294	50	17	13
2	33	29	228	81	85	495	330	657	244	47	16	16
3	31	40	182	69	80	349	294	1,700	212	44	16	13
4	37	44	178	72	75	330	294	1,040	182	37	17	12
5	56	42	154	83	70	452	452	864	178	42	17	12
6	45	40	138	657	65	473	1,620	757	144	40	17	12
7	42	37	116	349	128	473	985	809	128	37	16	13
8	38	40	109	260	133	330	757	657	114	36	15	13
9	36	40	100	180	133	212	706	517	100	36	17	14
10	34	40	89	141	114	197	809	452	91	41	16	13
11	32	38	98	182	100	133	757	389	83	47	15	13
12	31	38	89	154	94	212	985	369	76	47	15	13
13	30	38	87	138	111	923	864	369	69	42	14	14
14	29	40	85	144	96	2,760	757	473	65	38	14	15
15	29	42	83	130	109	2,860	706	473	60	33	15	15
16	29	42	83	130	83	2,760	1,220	389	53	29	17	15
17	29	40	85	141	76	1,480	1,160	330	50	26	16	18
18	32	40	114	178	74	1,040	985	294	47	24	15	16
19	47	58	114	517	81	809	757	495	44	28	15	16
20	53	197	96	277	85	657	1,160	562	41	24	14	16
21	42	133	81	182	132	562	1,860	657	45	21	14	16
22	37	109	79	197	78	562	1,620	609	42	20	14	15
23	33	96	70	182	65	864	1,160	517	40	20	16	15
24	31	87	65	178	65	706	864	495	47	19	14	15
25	29	83	64	149	69	657	864	473	65	19	13	14
26	30	79	64	140	809	706	1,350	349	83	20	13	14
27	31	72	65	120	1,620	657	985	312	47	19	14	14
28	31	70	69	120	923	562	864	657	56	18	13	14
29	29	69	79	110	-------	473	1,100	562	104	18	13	15
30	29	74	65	100	-------	495	864	452	56	17	13	15
31	29	-------	59	100	-------	430	-------	369	-------	16	13	-------
1929-30												
1	21	67	114	167	55	721	347	178	146	181	27	17
2	328	81	103	184	55	596	306	178	110	140	23	20
3	277	101	97	203	62	390	277	167	99	110	20	20
4	116	101	93	193	72	326	255	148	91	91	20	19
5	73	91	89	187	62	301	226	130	83	83	19	19
6	56	85	87	178	56	276	455	119	103	74	19	18
7	47	76	89	181	55	478	1,000	110	114	61	18	18
8	40	71	89	219	55	2,060	900	107	105	55	16	18
9	36	67	87	478	54	1,430	696	97	97	54	18	17
10	32	66	83	433	52	1,120	596	89	500	55	16	16
11	29	64	80	368	54	1,000	478	83	500	52	17	16
12	28	67	80	390	55	952	433	78	411	50	15	16
13	27	83	78	524	62	848	671	72	310	52	14	19
14	27	138	81	848	56	596	547	222	244	52	14	17
15	25	206	97	797	54	433	478	721	173	48	17	20
16	24	161	93	696	52	390	547	572	148	44	25	42
17	24	175	112	572	51	390	1,000	478	146	39	23	34
18	23	1,120	900	390	51	596	952	433	411	35	23	28
19	23	1,000	952	266	54	596	797	390	347	32	27	24
20	23	621	547	212	56	590	721	696	216	30	26	22
21	23	478	368	175	61	411	596	596	178	28	24	20
22	39	347	262	148	69	411	478	478	150	30	21	19
23	326	236	219	128	78	411	411	347	126	28	21	17
24	187	209	187	112	93	390	390	572	121	27	21	17
25	133	187	173	101	772	390	368	455	116	27	20	18
26	110	170	161	91	1,060	1,120	326	326	119	25	19	18
27	89	167	161	81	900	848	251	277	190	25	19	22
28	74	159	173	74	797	596	216	274	170	24	18	24
29	64	143	164	69	-------	475	196	244	181	38	18	22
30	56	123	159	62	-------	433	181	203	170	34	17	21
31	72	-------	159	56	-------	390	-------	181	-------	29	16	-------

Daily discharge, in second-feet, of Lycoming Creek near Trout Run, 1928-1932—Continued.

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	20	18	31	20	22	71	952	390	368	27	38	14
2	18	18	36	20	21	74	1,640	347	285	27	36	16
3	18	20	32	20	20	78	1,240	347	233	38	39	24
4	17	19	28	20	20	74	1,570	285	190	433	36	27
5	15	20	26	20	19	66	1,360	244	164	126	28	23
6	16	18	27	21	19	62	1,060	216	133	83	24	19
7	16	18	64	22	18	60	1,060	240	326	143	21	16
8	16	18	52	20	18	140	1,060	848	411	112	21	15
9	16	18	51	19	18	322	1,360	848	230	72	27	14
10	16	18	47	20	18	196	1,710	696	184	130	52	13
11	16	18	45	20	17	136	1,640	596	161	212	40	12
12	17	20	46	21	17	116	1,120	621	133	128	30	12
13	17	20	51	22	18	101	900	772	119	85	29	14
14	17	20	45	20	20	103	772	1,500	103	68	27	13
15	16	20	39	19	19	119	621	1,240	110	58	25	12
16	16	21	34	19	23	119	500	900	105	46	22	15
17	15	21	30	18	34	112	433	900	123	40	19	22
18	18	22	28	20	69	119	390	646	87	42	19	30
19	17	22	27	22	107	123	306	524	70	39	18	23
20	17	24	26	21	85	116	266	455	81	39	18	22
21	18	23	25	20	72	142	226	1,300	136	433	18	19
22	18	22	24	19	55	226	196	1,000	88	524	18	17
23	17	21	23	19	51	233	500	1,780	74	178	16	16
24	18	20	22	19	52	211	433	1,780	103	98	16	15
25	18	21	22	19	54	900	390	1,430	65	70	15	14
26	17	21	22	20	56	952	478	1,180	52	54	14	17
27	17	20	22	21	61	1,000	621	900	43	44	16	17
28	20	19	22	22	58	1,120	500	696	38	70	17	17
29	19	19	22	23	-------	2,060	524	547	32	44	17	16
30	20	22	21	24	-------	1,430	500	433	28	92	16	14
31	20	-------	21	23	-------	952	-------	372	-------	52	14	-------
1931–32												
1	15	15	22	46	547	114	1,880	196	82	24	19	7.2
2	14	16	22	181	478	107	1,640	247	82	42	16	8.0
3	13	16	20	187	433	98	2,200	184	87	48	22	7.6
4	13	16	20	153	368	103	1,430	159	97	72	21	10
5	13	16	19	130	310	96	1,060	156	75	64	19	10
6	13	16	19	389	258	103	900	146	62	46	17	10
7	13	16	19	1,900	236	90	746	193	53	42	16	9.2
8	13	15	17	798	266	84	671	456	51	41	14	8.0
9	14	15	17	478	289	79	772	646	49	52	12	7.2
10	13	16	19	347	268	75	1,120	773	45	47	16	7.2
11	13	15	34	258	700	70	1,360	1,390	41	38	16	7.2
12	13	15	59	212	721	68	1,180	1,260	43	29	14	7.2
13	12	14	149	226	572	68	621	1,000	53	26	13	7.2
14	13	14	226	368	455	63	746	797	65	24	12	7.2
15	13	14	161	368	390	61	596	952	60	22	12	7.2
16	14	14	96	500	368	60	478	721	53	21	10	7.2
17	14	15	61	411	314	61	411	696	62	20	10	7.2
18	14	15	44	572	266	79	368	547	48	17	21	6.8
19	14	15	38	433	200	92	326	455	41	76	27	6.8
20	14	15	37	347	184	123	310	368	37	200	26	6.4
21	13	15	32	306	126	130	277	314	37	105	18	6.4
22	13	16	36	390	138	138	227	270	34	75	14	6.4
23	14	15	125	500	125	159	203	212	33	51	13	7.2
24	14	15	101	671	116	184	167	184	30	37	12	7.6
25	14	14	105	572	112	184	164	161	32	27	12	7.2
26	13	14	85	455	112	273	173	148	35	24	10	7.2
27	13	15	58	411	130	572	153	167	35	30	9.2	9.2
28	14	16	49	390	130	547	138	140	36	28	9.2	10
29	16	16	46	368	114	524	119	121	27	25	8.0	12
30	15	16	38	1,240	-------	634	119	103	24	22	9.2	12
31	16	-------	38	952	-------	1,680	-------	91	-------	21	7.6	-------

Note.—Discharge estimated for periods of ice effect, Dec. 23, 24, 1928, Jan. 9, 15, 16, Jan. 26 to Feb. 23, 24, Dec. 12–15, 23–31, 1929, Jan. 1, 2, 5, 6, Jan. 20 to Feb. 23, Nov. 27–30, Dec. 16–31, 1930, Jan. 1–12, Jan. 14 to Feb. 17, Dec. 8, 9, 1931, Feb. 23, 24, Mar. 8–17, 1932.

Monthly discharge, in second-feet, of Lycoming Creek near Trout Run, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	56	29	34.8	0.188	0.22
November	197	29	60.9	.329	.37
December	312	59	106	.573	.66
January	657	69	178	.962	1.11
February	1,620	65	202	1.09	1.14
March	2,860	133	779	4.21	4.85
April	1,860	294	918	4.96	5.53
May	1,700	294	574	3.10	3.57
June	294	40	95.3	.515	.57
July	50	16	30.8	.166	.19
August	17	13	15.0	.081	.09
September	18	12	14.3	.077	.09
The year	2,860	12	251	1.36	18.39
1929–30					
October	368	21	80.5	.435	.50
November	1,120	61	221	1.19	1.33
December	952	78	202	1.09	1.26
January	848	56	277	1.50	1.73
February	1,060	51	177	.957	1.00
March	2,060	270	641	3.46	3.99
April	1,000	181	503	2.72	3.04
May	721	72	291	1.57	1.81
June	500	83	196	1.06	1.18
July	181	24	53.3	.288	.33
August	27	14	19.7	.106	.12
September	42	16	20.6	.111	.12
The year	2,060	14	224	1.21	16.41
1930–31					
October	20	15	17.3	.094	.11
November	24	18	20.1	.109	.12
December	64	21	32.6	.176	.20
January	24	19	20.5	.111	.13
February	107	17	37.8	.204	.21
March	2,060	60	379	2.05	2.36
April	1,710	196	811	4.38	4.89
May	1,780	216	782	4.23	4.88
June	411	28	142	.768	.86
July	524	27	116	.627	.72
August	52	14	24.1	.130	.15
September	30	12	17.3	.094	.10
The year	2,060	12	201	1.09	14.73
1931–32					
October	16	12	13.6	.074	.09
November	16	14	15.2	.082	.09
December	226	17	58.5	.316	.36
January	1,900	46	470	2.54	2.93
February	721	112	301	1.63	1.76
March	1,680	60	217	1.17	1.35
April	2,200	119	686	3.71	4.14
May	1,390	91	427	2.31	2.66
June	97	24	50.3	.272	.30
July	200	17	45	.243	.28
August	27	7.6	14.7	.079	.09
September	12	6.4	8	.043	.05
The year	2,200	6.4	192	1.04	14.10

LOYALSOCK CREEK AT LOYALSOCK

LOCATION.—Water-stage recorder at highway bridge at Loyalsock, Lycoming County. Zero of gage is 585.63 feet above mean sea level.

DRAINAGE AREA.—433 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 23,600 second-feet May 3 (gage height, 10.50 feet); minimum, 33 second-feet Sept. 1 (gage height, 2.61 feet).

Maximum discharge during year ending Sept. 30, 1930, 6,340 second-feet Apr. 7 (gage height, 6.44 feet); minimum, 24 second-feet Aug. 30, 31 (gage height, 2.67 feet).

Maximum discharge during year ending Sept. 30, 1931, 10,500 second-feet Mar. 29 (gage height, 7.66 feet from graph based on chain-gage readings); minimum, 23 second-feet Oct. 7, 8, Sept. 14, 15 (gage height, 2.66 feet).

Maximum discharge during year ending Sept. 30, 1932, about 12,000 second-feet Apr. 1 (gage height, 8.06 feet); minimum, 16 second-feet Sept. 18, 19, 22-25 (gage height, 2.57 feet).

1925-1932: Maximum discharge, about 34,000 second-feet Nov. 16, 1926 (gage height, 12.3 feet); minimum, that of September, 1932.

REMARKS.—Records good except those for high stages, which are fair, and those for periods of ice effect, which are poor. Graph based on once-daily readings of chain gage used at times when recorder failed to operate properly during winter of 1930-31, and May 10-12, 1932. Water-stage recorder, well, and shelter furnished by Robert O. Hayt, Corning, N. Y.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	125	125	585	130	200	1,200	690	1,920	540	275	45	33
2	145	115	585	130	180	900	585	1,150	460	218	42	34
3	125	110	460	130	170	765	540	12,800	380	176	46	34
4	110	120	380	130	160	720	540	3,990	331	149	54	34
5	95	130	359	140	150	765	975	2,350	331	136	51	34
6	115	125	331	300	140	1,030	2,700	1,860	321	125	46	34
7	130	125	289	800	150	865	1,960	1,860	282	110	46	36
8	115	120	247	600	300	2,100	1,280	1,420	240	103	43	41
9	95	110	240	500	300	585	1,150	1,090	224	103	42	37
10	80	125	268	340	300	500	1,220	920	202	103	42	35
11	77	130	210	300	260	500	1,710	765	180	103	42	39
12	74	120	222	300	240	630	2,180	720	172	92	41	37
13	74	120	192	300	220	1,280	1,940	810	158	89	39	42
14	77	115	198	280	200	5,050	1,420	810	149	75	40	75
15	74	120	192	280	180	5,340	1,220	975	140	69	55	254
16	74	120	180	280	180	5,050	2,520	810	140	61	129	158
17	71	120	180	300	170	2,890	2,890	720	133	57	89	103
18	71	120	210	360	170	1,860	2,180	630	118	59	61	103
19	74	130	345	500	180	1,350	1,940	765	100	61	48	118
20	115	275	275	650	180	1,090	2,890	1,280	100	61	46	92
21	120	380	198	600	280	920	4,240	1,150	158	63	46	61
22	95	296	160	500	260	865	4,240	1,350	149	57	42	54
23	90	247	170	460	180	1,220	2,700	1,030	122	55	42	52
24	125	234	186	420	130	1,280	1,940	920	460	55	41	52
25	222	222	160	360	150	1,220	1,860	1,090	460	54	39	47
26	180	210	160	320	800	1,090	4,240	865	352	50	37	42
27	170	186	160	280	3,800	1,030	2,180	765	324	50	39	42
28	165	180	160	260	2,200	920	1,710	1,090	240	48	38	42
29	155	180	140	240	-------	810	2,350	920	420	46	36	42
30	150	198	130	220	-------	765	1,560	810	345	46	35	43
31	140	-------	130	200	-------	720	-------	630	-------	46	34	-------

Daily discharge, in second feet, of Loyalsock Creek at Loyalsock, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	4[illegible]	163	285	446	175	1,140	738	1,630	446	263	66	26
2	773	168	280	454	180	1,080	669	1,750	380	380	54	26
3	3,880	222	277	879	190	888	615	462	315	374	54	32
4	1,610	708	278	682	210	726	554	396	270	263	54	37
5	772	564	280	672	195	604	498	1,580	247	214	51	37
6	507	437	285	594	182	554	531	308	231	200	48	37
7	358	373	298	583	172	566	4,010	296	420	191	45	[illegible]
8	282	322	371	672	168	4,260	2,800	308	328	168	42	29
9	236	302	488	1,170	167	3,380	1,840	302	270	151	34	27
10	204	270	388	1,200	166	2,130	1,390	263	972	751	37	26
11	147	252	315	875	167	1,660	1,140	252	1,030	523	34	29
12	163	241	289	810	170	1,840	940	236	644	373	34	26
13	155	225	282	1,130	178	1,330	996	220	1,860	270	32	32
14	151	220	426	1,990	190	1,050	1,200	220	373	414	32	34
15	139	306	927	1,910	177	875	1,960	1,860	322	600	35	66
16	131	488	940	1,560	165	774	1,130	1,540	270	341	54	131
17	116	420	812	1,080	160	702	1,970	1,010	247	252	48	162
18	109	2,700	1,990	800	162	690	2,380	762	1,960	209	45	109
19	102	3,290	3,800	600	170	1,420	1,840	714	2,940	186	42	82
20	102	1,840	3,640	480	200	1,120	1,410	1,230	1,600	168	39	69
21	95	1,280	2,030	400	300	888	1,160	982	1,010	151	39	63
22	116	927	1,630	320	500	702	1,020	762	714	147	34	34
23	370	762	1,120	260	710	604	836	636	536	139	32	34
24	410	647	740	230	1,040	583	714	570	446	143	29	34
25	289	574	598	210	1,280	659	647	2,320	498	131	29	29
26	263	498	530	195	2,270	2,720	583	1,380	403	112	37	34
27	231	454	520	188	2,330	1,880	526	954	713	102	42	63
28	204	428	527	185	1,440	1,330	471	774	462	92	39	98
29	186	373	535	190	-------	1,100	420	738	350	102	32	79
30	168	310	507	182	-------	968	388	626	282	88	24	57
31	163	-------	454	177	-------	836	-------	507	-------	76	24	-------
1930-31												
1	45	48	40	34	35	240	2,530	702	702	98	82	60
2	34	34	110	33	32	250	4,600	636	564	95	76	54
3	32	34	100	33	31	250	3,730	604	462	116	76	57
4	27	32	85	34	30	235	3,740	545	388	192	79	69
5	26	29	75	37	29	220	2,660	454	343	177	79	88
6	24	29	80	40	29	225	2,640	412	308	147	76	69
7	23	27	200	44	28	231	2,380	412	344	131	63	57
8	23	29	200	38	28	596	2,400	1,180	735	135	60	48
9	29	29	175	35	28	901	3,070	2,310	516	155	68	39
10	27	32	155	33	28	594	3,730	1,530	388	278	102	34
11	34	34	135	32	28	446	3,730	1,180	420	876	106	29
12	32	29	123	31	28	380	2,760	1,100	336	476	95	27
13	29	29	123	30	29	343	2,090	1,360	282	284	82	26
14	27	32	120	30	32	336	1,630	2,580	252	214	72	24
15	27	32	96	30	31	358	1,290	2,220	231	177	69	24
16	26	29	57	30	45	366	1,070	1,080	268	155	63	24
17	26	37	49	31	90	388	927	1,660	328	135	57	150
18	26	39	45	32	200	396	679	1,410	280	127	54	120
19	26	45	49	35	330	380	658	1,080	220	120	56	109
20	26	48	51	40	350	366	574	940	191	112	96	85
21	32	45	49	37	220	480	507	3,230	258	116	63	69
22	37	45	44	33	180	738	420	2,580	247	427	57	60
23	34	34	40	36	170	774	380	3,720	200	288	48	51
24	34	37	38	29	170	1,610	406	4,480	181	186	45	42
25	34	39	37	29	185	2,960	606	3,390	172	151	39	37
26	29	42	37	30	205	3,280	1,340	2,900	151	123	37	45
27	32	39	37	32	220	3,390	1,020	1,950	143	112	37	39
28	34	36	37	36	225	5,000	968	1,420	131	102	52	37
29	37	32	37	40	-------	8,060	914	1,100	116	92	99	37
30	39	30	36	41	-------	4,380	836	875	106	92	95	34
31	34	-------	35	39	-------	2,660	-------	836	-------	92	76	-------

Daily discharge, in second feet, of Loyalsock Creek at Loyalsock, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	34	40	50	104	1,340	296	8,290	359	350	112	63	24
2	32	44	66	296	996	289	4,740	677	328	263	57	27
3	31	42	69	366	862	270	7,620	545	336	218	57	28
4	31	42	63	315	774	270	5,180	454	448	177	63	32
5	31	40	57	258	669	296	3,180	412	403	249	63	29
6	29	37	57	402	545	30[illegible]	2,640	380	315	228	57	31
7	29	34	56	2,120	516	303	2,070	437	270	177	52	31
8	28	32	47	1,580	576	267	1,840	644	231	177	44	28
9	28	32	54	940	849	250	1,950	996	209	186	42	26
10	28	32	52	669	679	240	2,560	1,020	195	151	40	23
11	31	32	56	516	1,800	240	3,070	1,680	186	123	44	22
12	31	32	94	420	2,220	230	2,660	2,050	172	106	50	20
13	29	34	185	396	1,680	220	2,000	1,510	265	95	52	19
14	28	34	315	498	1,22[illegible]	220	1,610	1,330	252	85	47	18
15	29	37	396	462	940	216	1,340	1,600	231	76	37	18
16	29	40	270	615	750	215	1,110	1,200	279	72	32	18
17	29	40	195	526	702	220	888	1,140	384	66	29	17
18	29	40	151	615	626	220	786	875	350	60	48	16
19	29	40	131	583	480	240	690	726	258	54	68	17
20	29	40	120	480	480	352	604	615	214	54	69	17
21	28	37	112	446	411	420	545	545	191	60	63	17
22	28	37	109	615	380	454	488	471	172	66	52	16
23	28	37	135	739	347	714	446	412	155	339	44	16
24	28	37	143	1,340	308	810	403	358	428	214	37	17
25	27	34	159	1,040	282	714	373	328	127	141	32	17
26	27	32	163	798	289	1,230	373	402	142	109	29	18
27	26	37	136	798	289	3,070	350	471	157	106	27	22
28	27	37	115	810	308	2,620	328	989	139	116	26	28
29	29	37	100	679	315	1,880	302	706	131	98	24	28
30	32	44	90	1,950	-----	1,880	282	507	116	82	23	31
31	34	-----	85	2,050	-----	4,290	-----	412	-----	72	23	-----

Note.—Discharge estimated for periods of ice effect, Dec. 25-31, 1928, Jan. 1 to Mar. 2, Nov. 30 to Dec. 7, Dec. 24-29, 1929, Jan. 18 to Feb. 24, Nov. 28 to Dec. 9, Dec. 17-31, 1930, Jan. 1 to Mar. 5, Dec. 28-31, 1931, Mar. 9-19, 1932.

Monthly discharge, in second-feet, of Loyalsock Creek at Loyalsock, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	222	71	114	0.263	0.30
November	380	110	164	.379	.42
December	585	130	248	.573	.66
January	800	130	342	.790	.91
February	3,800	130	422	.975	1.02
March	5,340	500	1,460	3.37	3.88
April	4,240	540	1,980	4.57	5.10
May	12,800	630	1,530	3.53	4.07
June	540	100	258	.596	.66
July	275	46	90.2	.208	.24
August	129	34	47.6	.110	.13
September	254	33	61.7	.142	.16
The year	12,800	33	561	1.30	17.55

Monthly discharge, in second-feet, of Loyalsock Creek at Loyalsock, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	3,880	42	402	0.928	1.07
November	3,290	163	659	1.52	1.70
December	1,800	277	834	1.93	2.22
January	1,980	177	691	1.60	1.84
February	2,330	160	479	1.11	1.16
March	4,260	554	1,260	2.91	3.36
April	4,010	388	1,180	2.73	3.05
May	2,320	220	825	1.91	2.20
June	2,940	231	685	1.58	1.76
July	751	76	244	.564	.65
August	66	24	40.0	.092	.11
September	162	26	52.5	.121	.14
The year	4,260	24	613	1.42	19.26
1930-31					
October	45	23	30.5	.070	.08
November	48	27	35.2	.081	.09
December	200	35	80.5	.186	.21
January	44	29	34.1	.079	.09
February	350	28	108	.249	.26
March	8,060	220	1,320	3.05	3.52
April	4,600	380	1,810	4.18	4.66
May	4,480	412	1,630	3.76	4.34
June	735	106	309	.714	.80
July	876	92	193	.446	.51
August	106	37	69.6	.161	.19
September	150	24	54.8	.127	.14
The year	8,060	23	474	1.09	14.89
1931-32					
October	34	26	29.3	.068	.08
November	44	32	37.1	.086	.10
December	396	47	124	.286	.33
January	2,120	104	756	1.75	2.02
February	2,220	282	746	1.72	1.86
March	4,290	215	747	1.73	1.99
April	8,290	282	1,960	4.53	5.05
May	2,050	328	782	1.81	2.09
June	448	116	246	.568	.63
July	339	54	133	.307	.35
August	69	23	45.0	.104	.12
September	32	16	22.4	.052	.06
The year	8,290	16	466	1.08	14.68

SUSQUEHANNA BASIN—STATION NO. 25

PENN CREEK AT PENNS CREEK

LOCATION.—Water-stage recorder at bridge on State Highway No. 104, three-fourths mile northeast of Penns Creek, Union County. Chain gage at same site and datum used prior to Feb. 1, 1930.

DRAINAGE AREA.—301 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1930, about 4,020 second-feet Oct. 23 (gage height, 6.95 feet); minimum, 25 second-feet Sept. 29 (gage height, 1.06 feet).

Maximum discharge during year ending Sept. 30, 1931, about 4,900 second-feet May 23 (gage height, 7.80 feet); minimum, 18 second-feet Oct. 28 (gage height, 0.93 foot).

Maximum gage height during year ending Sept. 30, 1932, 7.19 feet Apr. 1; minimum, 0.84 foot Sept. 27.

REMARKS.—Records good except those from chain-gage readings, those above 1,200 second-feet, and those for periods of ice effect, which are poor. Discharge not determined for Oct. 1, 1931, to Sept. 30, 1932, because of unstable channel conditions. Considerable regulation at low stages from power operations upstream. Water-stage recorder, well, and shelter, furnished by United States Engineer Office, Baltimore, Md. The following current-meter discharge measurements were obtained during the year ending Sept. 30, 1932.

Penn Creek at Penns Creek
Table of discharge measurements

Date	Gage height	Discharge	Date	Gage height	Discharge
1932	Feet	Second-feet	1932	Feet	Second-feet
June 1	2.18	256	Sept. 3	1.04	15.7
June 26	1.69	121			

Daily discharge, in second-feet, of Penn Creek at Penns Creek, 1929-1931.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	65	412	372	446	300	1,240	400	388	214	193	65	53
2	690	365	320	462	310	1,070	400	372	202	187	63	55
3	1,910	441	280	562	320	879	396	353	189	169	54	58
4	793	514	270	536	331	727	384	338	172	147	61	50
5	396	432	270	488	312	649	353	316	168	140	58	49
6	288	380	280	441	280	609	365	309	174	141	55	39
7	257	372	323	462	260	624	337	298	230	214	55	45
8	205	372	388	488	240	2,720	701	306	202	190	61	41
9	180	331	396	540	230	2,060	624	292	195	140	51	50
10	160	312	336	488	220	1,470	567	274	473	133	49	45
11	163	309	264	471	220	1,280	531	257	562	130	54	40
12	120	302	338	433	220	1,180	501	250	347	112	53	38
13	132	302	369	527	220	940	484	240	298	120	54	36
14	130	312	392	581	230	804	467	264	263	131	51	39
15	86	437	437	553	240	701	433	475	243	116	55	58
16	110	429	372	527	240	654	624	450	227	110	55	43
17	80	433	372	440	230	624	1,030	365	224	88	53	43
18	99	1,430	421	410	230	604	940	342	354	94	51	43
19	84	1,660	558	400	240	639	879	334	542	88	50	35
20	88	1,210	590	380	295	562	782	346	320	79	49	40
21	84	1,000	509	360	433	518	722	323	270	83	49	36
22	743	799	514	350	417	462	749	298	240	77	48	37
23	3,360	654	454	340	380	429	669	278	221	81	45	36
24	1,430	595	420	330	380	417	595	281	230	83	48	38
25	940	521	400	320	603	433	558	281	227	77	41	38
26	711	527	400	310	1,840	571	527	264	220	75	41	43
27	581	514	400	300	2,250	509	488	244	410	68	43	42
28	505	492	400	300	1,680	454	454	254	253	75	48	45
29	429	492	410	300	-------	441	433	271	202	65	42	34
30	412	462	410	300	-------	429	404	240	193	68	43	38
31	446	-------	425	300	-------	412	-------	224	-------	63	42	-------
1930–31												
1	35	39	51	45	90	94	823	456	754	143	146	88
2	35	30	67	46	58	89	1,730	427	649	157	115	84
3	37	34	58	47	52	96	1,180	431	571	199	145	126
4	35	34	32	52	49	85	1,320	390	518	300	189	130
5	38	33	40	75	46	77	1,110	366	475	278	146	99
6	36	37	38	115	44	74	948	324	441	202	125	88
7	32	39	58	123	44	67	868	328	889	296	115	82
8	36	31	66	148	45	132	915	507	841	214	108	74
9	36	39	70	102	44	184	825	556	527	755	110	65
10	36	33	57	99	37	139	738	482	458	1,370	467	62
11	35	37	41	85	30	114	685	456	417	827	647	62
12	37	36	46	83	27	91	612	439	380	634	292	61
13	34	36	46	67	26	81	566	900	353	505	221	57
14	35	35	41	58	27	83	517	2,070	331	421	183	58
15	37	34	32	52	28	93	478	2,160	327	361	168	61
16	40	36	30	50	40	118	435	1,570	365	316	131	56
17	36	34	30	50	158	123	402	1,290	365	292	130	61
18	29	33	32	52	635	123	374	1,040	302	271	117	62
19	36	45	40	60	534	123	335	855	271	254	115	60
20	36	37	47	70	328	131	316	827	254	227	117	61
21	33	36	63	65	230	125	298	2,140	247	227	115	56
22	30	33	55	57	174	128	291	1,780	230	436	110	55
23	45	35	50	55	163	133	743	4,130	224	342	99	55
24	37	34	47	55	163	138	660	3,580	217	254	99	50
25	35	33	45	56	167	163	561	2,060	202	208	95	52
26	30	33	47	63	133	218	588	2,190	192	192	97	58
27	40	30	54	77	113	211	685	1,620	189	174	92	65
28	35	26	58	120	96	243	579	1,320	180	171	99	62
29	38	26	52	170	-------	1,170	552	1,040	168	160	148	50
30	42	26	47	145	-------	825	508	910	157	160	132	53
31	38	-------	46	128	-------	588	-------	821	-------	157	97	-------

Daily mean gage height, in feet, of Penn Creek at Penns Creek, 1931-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.31	1.33	1.39	1.47	2.44	-------	6.85	2.44	2.16	1.69	1.42	1.36
2	1.31	1.32	1.39	2.30	2.44	-------	5.79	2.56	2.17	1.85	1.45	1.39
3	1.29	1.28	1.35	2.36	2.30	1.85	5.41	2.35	2.15	1.82	1.48	1.32
4	1.30	1.32	1.30	2.11	2.29	1.85	4.85	2.25	2.23	1.76	1.51	1.50
5	1.29	1.25	1.30	1.95	2.41	1.89	4.38	2.21	2.45	1.78	1.55	1.49
6	2.28	1.32	1.31	1.96	2.25	1.95	4.08	2.22	2.49	1.74	1.51	1.43
7	1.33	1.34	1.31	2.42	2.21	1.96	3.79	2.30	2.23	1.67	1.45	1.36
8	1.44	1.28	1.48	2.45	2.22	1.79	3.56	2.44	2.12	1.69	1.44	1.25
9	1.41	1.27	1.25	2.28	2.26	2.08	3.52	2.71	2.06	1.65	1.43	1.28
10	1.39	1.28	1.41	2.14	2.17	2.12	3.80	3.51	2.03	1.60	1.41	1.31
11	1.35	1.31	1.42	2.02	2.18	2.05	3.77	5.03	1.97	1.58	1.44	1.32
12	1.35	1.30	1.49	1.94	2.17	2.05	3.82	5.40	1.96	1.58	1.50	1.24
13	1.30	1.30	1.60	1.90	2.13	2.02	3.68	4.72	2.13	1.56	1.48	1.27
14	1.29	1.31	1.86	1.87	2.06	1.99	3.55	4.24	2.11	1.52	1.45	1.30
15	1.34	1.27	-------	1.80	2.02	1.86	3.40	3.89	2.06	1.51	1.39	1.25
16	1.37	1.28	-------	1.78	1.99	1.99	3.26	3.59	1.95	1.48	1.39	1.28
17	1.37	1.28	-------	1.77	2.01	1.97	3.13	3.38	1.98	1.48	1.39	1.30
18	1.31	1.29	-------	1.67	2.02	2.01	3.03	3.16	1.89	1.45	1.37	1.27
19	1.29	1.28	-------	1.74	1.97	2.17	2.91	3.03	1.85	1.45	1.58	1.18
20	1.31	1.31	1.35	1.70	1.89	2.37	2.82	2.91	1.82	1.48	1.55	1.24
21	1.34	1.27	1.32	1.67	1.89	2.41	2.74	2.82	1.80	1.62	1.45	1.24
22	1.30	1.27	1.37	1.67	1.90	2.50	2.67	2.73	1.85	1.58	1.40	1.23
23	1.29	1.29	1.39	1.78	1.83	2.63	2.60	2.61	1.84	1.47	1.40	1.25
24	1.29	1.29	1.41	2.01	1.87	2.57	2.52	2.57	1.60	1.44	1.38	1.23
25	1.27	1.31	1.43	2.01	1.86	2.56	2.51	2.49	1.68	1.43	1.28	1.20
26	1.28	1.26	1.45	1.92	1.81	2.62	2.47	2.42	1.66	1.47	1.32	1.21
27	1.26	1.27	1.32	1.95	1.79	2.92	2.41	2.39	1.78	1.48	1.37	1.17
28	1.26	1.33	1.29	1.99	1.87	3.38	2.35	2.37	1.88	1.59	1.30	1.37
29	1.37	1.30	1.39	1.93	2.03	3.34	2.30	2.30	1.81	1.58	1.28	1.36
30	1.36	1.34	1.28	2.29	-------	3.60	2.27	2.26	1.74	1.56	1.38	1.30
31	1.37	-------	1.34	2.45	-------	5.33	-------	2.20	-------	1.47	1.46	-------

Note.—Chain gage readings used Oct. 1 to Dec. 31, 1929, Jan. 1 to Jan. 31, 1930, Feb. 2-21, 1931. Discharge interpolated Dec. 10, 1930. Discharge estimated for periods of ice effect, Dec. 2-6, 24-30, 1929, Jan. 17 to Feb. 2, Feb. 6-18, Nov. 27-30, Dec. 16-19, 22-31, 1930, Jan. 1-5, Jan. 14 to Feb. 16, 1931.

Monthly discharge, in second-feet, of Penn Creek at Penns Creek, 1929-1931.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929–30					
October	3,360	65	506	1.68	1.94
November	1,660	302	562	1.87	2.09
December	590	264	390	1.30	1.50
January	581	300	424	1.41	1.63
February	2,220	220	465	1.54	1.60
March	2,720	412	810	2.69	3.10
April	1,030	353	577	1.92	2.14
May	475	224	307	1.02	1.18
June	562	168	269	.894	1.00
July	214	63	114	.379	.44
August	65	41	51.2	.170	.20
September	58	34	42.9	.143	.16
The year	3,360	34	376	1.25	16.98
1930–31					
October	45	29	35.9	.119	.14
November	45	26	34.1	.113	.13
December	70	30	47.9	.159	.18
January	170	45	79.7	.265	.31
February	635	26	128	.425	.44
March	1,170	67	195	.648	.75
April	1,730	291	688	2.29	2.56
May	4,130	324	1,230	4.09	4.72
June	889	157	383	1.27	1.42
July	1,370	143	339	1.13	1.50
August	647	92	160	.532	.61
September	130	50	68.4	.227	.25
The year	4,130	26	283	.940	12.81

MAHANTANGO CREEK EAST NEAR DALMATIA

LOCATION.—Water-stage recorder at highway bridge 2 miles above mouth and 3½ miles south of Dalmatia, Northumberland County. Chain gage at same datum used prior to Feb. 10, 1930.

DRAINAGE AREA.—162 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1930 (estimated), 7,800 second-feet Oct. 2, 3 (gage height, 10.3 feet from graph based on gage readings); minimum, 3.7 second-feet Sept. 29 (gage height, 0.98 foot).

Maximum discharge during year ending Sept. 30, 1931, 900 second-feet May 8 (gage height, 3.97 feet); minimum, 2.5 second-feet Oct. 6 (gage height, 0.92 foot).

Maximum discharge during year ending Sept. 30, 1932, about 3,370 second-feet Apr. 1 (gage height, 6.88 feet); minimum, 1.5 second-feet Sept. 21 (gage height, 0.84 foot).

REMARKS.—Records good except those for high stages and for periods of ice effect, which are fair. Some regulation at low stages from power operations upstream. Water-stage recorder, well, and shelter furnished by United States Engineer Office, Baltimore, Md.

Daily discharge, in second-feet, 1929-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	26	160	200	272	165	652	308	140	114	106	20	5.8
2	2,070	152	190	348	167	558	262	136	104	128	17	8.0
3	4,570	185	185	517	170	438	236	131	94	133	11	8.0
4	1,340	337	185	571	180	356	220	118	89	98	13	8.6
5	665	315	190	442	240	312	193	110	84	84	12	9.8
6	419	272	210	374	200	276	217	108	80	95	13	8.6
7	326	266	250	341	180	272	1,630	104	87	108	12	8.0
8	276	214	340	322	185	948	1,090	98	74	80	9.2	7.1
9	220	202	450	312	173	815	704	91	78	67	8.6	7.6
10	190	179	286	269	170	600	525	87	200	77	9.8	7.1
11	162	171	173	223	169	550	442	82	228	67	8.0	7.6
12	155	162	193	220	168	558	374	75	133	56	9.2	5.8
13	133	140	202	266	180	450	333	75	108	54	8.0	5.2
14	127	131	187	249	220	393	312	91	98	52	8.0	4.8
15	122	140	236	266	250	333	262	295	87	56	9.2	5.2
16	108	140	229	258	215	301	290	199	80	48	9.2	8.0
17	104	152	272	249	230	283	344	152	97	42	14	9.2
18	94	1,310	308	236	300	272	315	136	1,730	40	21	9.2
19	82	1,400	322	185	285	297	326	160	875	41	17	8.0
20	78	755	304	192	280	239	304	208	575	32	12	6.7
21	78	538	266	187	348	208	290	158	438	34	10	5.8
22	314	465	272	182	337	179	290	148	344	36	10	5.2
23	980	245	226	178	326	171	255	140	283	34	9.2	5.5
24	477	312	210	173	326	165	229	148	236	36	8.0	5.5
25	348	280	200	172	400	188	208	242	208	32	7.1	7.1
26	255	236	200	171	1,070	427	193	179	176	29	8.0	6.7
27	208	220	205	170	1,480	382	179	160	171	26	8.6	5.5
28	185	229	199	169	888	370	168	165	148	24	9.2	5.5
29	158	190	255	168	-------	363	158	173	127	22	7.1	4.2
30	148	210	233	167	-------	333	145	145	110	24	7.1	4.5
31	173	-------	211	166	-------	272	-------	129	-------	21	6.2	-------

Daily discharge, in second-feet, of Mahantango Creek East near Dalmatia, 1929-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	4.8	10	11	24	17	50	276	96	148	22	16	18
2	4.2	10	35	22	15	43	408	93	139	24	16	20
3	4.0	5.5	12	22	12	40	333	96	122	34	14	67
4	4.2	6.7	12	19	11	44	308	93	104	62	13	47
5	4.8	7.6	12	20	10	37	245	84	96	37	23	29
6	2.7	7.6	12	58	9	34	220	77	91	30	20	23
7	4.6	6.7	12	100	8	27	233	78	88	37	16	18
8	4.5	8.0	9.3	74	10	53	312	407	267	40	13	15
9	4.8	6.7	8.8	42	10	276	272	562	173	35	11	13
10	4.8	5.5	10	23	13	176	236	423	112	46	60	14
11	4.8	6.7	10	18	17	129	211	404	102	100	310	10
12	4.8	7.6	7.8	16	17	106	171	322	94	58	97	9.8
13	3.7	8.6	7.5	15	18	87	150	330	82	36	64	9.2
14	5.2	7.6	7.1	15	25	74	133	337	75	30	45	5.8
15	5.2	7.1	7.0	14	80	70	122	319	70	28	42	6.2
16	5.5	9.2	9	14	125	72	112	283	86	22	64	6.7
17	4.8	6.7	6	13	171	78	104	258	104	20	36	7.1
18	4.8	12	6	13	294	93	96	229	75	19	31	6.7
19	4.0	11	4	19	226	100	91	196	60	54	24	7.5
20	4.2	18	3	29	155	108	82	185	55	47	21	8.0
21	4.8	11	4	29	118	102	84	305	49	50	21	5.8
22	4.8	10	3.5	27	98	98	74	283	45	88	18	5.8
23	5.2	8.6	3.5	23	85	96	153	538	42	61	19	5.5
24	6.2	5.8	3	19	72	93	152	465	45	48	18	5.8
25	6.7	9.0	3	17	60	91	106	393	40	43	19	5.5
26	5.8	10	7	20	56	114	110	341	36	42	17	5.2
27	5.2	13	24	22	52	106	136	276	32	26	23	5.8
28	5.8	9.9	42	23	42	98	118	220	28	25	43	5.2
29	7.1	6.2	59	27	-------	289	108	199	28	30	37	5.8
30	8.0	7.1	49	25	-------	367	106	171	27	23	32	8.6
31	8.2	-------	38	20	-------	301	-------	155	-------	22	23	-------
1931-32												
1	6.2	13	11	23	144	84	2,970	175	93	37	11	7.6
2	6.7	13	18	66	135	69	1,640	292	89	64	11	7.6
3	5.5	15	14	229	145	65	1,020	179	93	48	14	6.7
4	5.8	13	14	185	158	63	683	160	108	37	88	6.7
5	4.5	11	15	135	202	65	550	158	89	40	37	5.5
6	4.9	10	11	181	173	73	458	160	69	33	20	7.2
7	6.5	11	10	452	162	104	382	260	72	30	15	7.6
8	6.1	7.1	9.5	396	162	90	333	284	60	29	11	7.2
9	7.6	6.7	9.5	333	148	78	312	517	56	31	14	6.7
10	11	6.2	9.8	262	129	70	390	497	56	20	15	5.9
11	11	7.9	20	217	127	66	446	720	53	22	11	4.7
12	7.6	6.7	24	176	127	63	430	1,100	52	20	10	2.8
13	6.2	8.8	32	176	116	61	382	875	75	18	12	3.5
14	6.7	9.0	54	182	102	60	341	687	83	15	8.4	3.4
15	12	8.1	53	160	91	59	297	617	116	16	7.6	2.3
16	31	7.1	37	148	80	60	269	493	80	15	7.2	1.8
17	26	7.6	27	125	93	90	242	419	78	13	7.2	1.8
18	12	9.0	26	122	96	164	223	348	78	11	7.2	1.8
19	9.2	10	19	114	84	288	205	304	58	13	6.3	1.9
20	9.1	9.0	19	102	80	756	185	269	49	14	8.9	1.6
21	9.3	12	16	94	85	732	171	242	51	16	8.4	1.5
22	7.6	8.9	16	89	79	626	162	220	53	15	8.0	1.6
23	7.1	8.0	19	93	70	622	152	193	50	42	8.0	1.8
24	8.4	8.0	25	104	62	509	140	173	37	39	8.0	2.0
25	7.6	9.8	27	94	63	423	136	158	34	21	6.3	2.2
26	6.7	9.1	23	80	64	389	133	145	50	20	5.9	2.3
27	6.7	8.4	20	85	60	400	129	185	75	21	5.0	2.6
28	8.6	7.2	19	94	88	720	112	162	76	103	4.7	3.1
29	8.0	9.5	19	90	96	965	104	127	60	34	3.9	3.4
30	8.8	9.4	22	121	-------	1,370	98	112	40	19	6.2	4.5
31	20	-------	24	182	-------	2,210	-------	102	-------	14	6.7	-------

Note.—Discharge interpolated for Oct. 6, 7, 1929. Discharge estimated for periods of ice effect, Nov. 30 to Dec. 8, Dec. 24-26, 1929, Jan. 20 to Feb. 19, Dec. 16-26, 1930, Jan. 10 to Feb. 16, Dec. 7-9, 28, 29, 1931, Feb. 2, 3, Mar. 8-17, 1932. Discharge estimated on basis of chain-gage readings for Feb. 6, 7, 1932.

Monthly discharge, in second-feet, of Mahantango Creek East near Dalmatia, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	4,570	26	471	2.91	3.36
November	1,400	131	324	2.00	2.23
December	450	173	238	1.47	1.70
January	571	166	259	1.60	1.84
February	1,480	165	332	2.05	2.14
March	948	165	386	2.38	2.74
April	1,630	145	360	2.22	2.48
May	285	75	141	.870	1.00
June	1,730	74	242	1.49	1.66
July	133	21	57.5	.355	.41
August	21	6.2	10.7	.066	.08
September	9.8	4.2	6.79	.042	.05
The year	4,570	4.2	235	1.45	19.69
1930-31					
October	9.2	2.7	5.14	.032	.04
November	18	5.5	8.65	.053	.06
December	58	3	14.0	.086	.10
January	100	13	26.5	.164	.19
February	294	8	65.2	.402	.42
March	367	27	111	.685	.79
April	408	74	175	1.08	1.20
May	562	77	265	1.64	1.89
June	267	27	83.8	.517	.58
July	100	19	40.0	.247	.28
August	310	11	38.9	.240	.28
September	67	5.2	13.3	.082	.09
The year	562	2.7	70.7	.436	5.92
1931-32					
October	31	4.5	9.50	.059	.07
November	15	6.2	9.32	.058	.06
December	54	9.5	21.4	.132	.15
January	452	23	158	.975	1.12
February	202	60	111	.685	.74
March	2,210	59	368	2.27	2.62
April	2,970	98	436	2.69	3.00
May	1,100	102	333	2.06	2.38
June	116	34	67.8	.419	.47
July	103	11	28.1	.173	.20
August	88	3.9	12.7	.078	.09
September	7.6	1.5	3.98	.025	.03
The year	2,970	1.5	130	.802	10.93

FRANKSTOWN BRANCH OF JUNIATA RIVER AT WILLIAMSBURG

LOCATION.—Water-stage recorder at highway bridge at Williamsburg, Blair County. Zero of gage is 831.78 feet above mean sea level.

DRAINAGE AREA.—295 square miles.

RECORDS AVAILABLE.—October, 1916, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 6,630 second-feet Apr. 5 (gage height, 10.20 feet); minimum, 42 second-feet Nov. 27 (gage height, 1.38 feet).

Maximum discharge during year ending Sept. 30, 1930, about 13,000 second-feet Oct. 23 (gage height, 13.9 feet); mininum, 25 second-feet Sept. 12 (gage height, 1.31 feet).

Maximum discharge during year ending Sept. 30, 1931, 4,230 second-feet Apr. 4 (gage height, 8.35 feet); minimum, 23 second-feet Oct. 3 (gage height, 1.29 feet).

Maximum discharge during year ending Sept. 30, 1932, 4,710 second-feet Apr. 1 (gage height, 8.85 feet); minimum, 41 second-feet Sept. 25, 26 (gage height, 1.38 feet).

1916-1932: Maximum discharge, that of Oct. 23, 1929; minimum, 20 second-feet Sept. 29, 1928 (gage height, 1.22 feet).

REMARKS.—Records good except those for high stages and for periods when chain-gage readings were used, which are fair, and those for periods of ice effect, which are poor. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	110	77	237	96	126	950	310	602	564	130	72	56
2	90	77	160	119	114	811	260	602	457	134	70	56
3	85	80	132	82	114	950	260	1,660	395	121	77	56
4	85	86	119	83	100	1,220	260	950	337	110	94	48
5	86	94	112	88	98	1,800	2,600	811	297	109	77	52
6	110	85	107	351	105	2,270	2,190	767	284	110	70	58
7	92	77	90	121	115	2,110	1,160	1,050	260	123	70	77
8	82	77	109	112	121	1,000	855	724	272	107	70	130
9	75	74	94	160	126	767	682	640	248	107	68	337
10	79	74	77	226	146	527	950	564	215	105	70	146
11	77	77	83	297	119	640	855	492	204	98	72	94
12	79	77	94	171	100	900	1,050	457	195	94	82	85
13	77	83	102	128	88	1,460	950	492	226	90	72	85
14	74	83	102	80	94	2,780	811	682	182	94	70	90
15	77	80	123	160	98	2,690	950	527	160	92	72	85
16	77	79	121	103	112	2,110	3,050	492	150	80	68	80
17	79	79	117	107	150	1,460	3,670	457	148	79	68	136
18	85	75	130	150	248	950	1,730	395	171	79	68	114
19	109	98	130	492	395	767	1,220	425	142	77	74	83
20	90	126	107	284	204	682	1,100	457	160	75	70	79
21	85	103	70	193	160	564	1,590	425	150	72	67	74
22	77	103	79	150	160	492	1,660	425	132	72	67	72
23	83	103	88	182	140	564	1,160	351	128	74	68	74
24	96	96	90	204	142	527	950	337	193	77	72	72
25	94	90	90	171	182	457	950	324	182	121	67	70
26	94	82	92	144	2,030	425	1,160	297	171	142	63	70
27	86	86	94	142	2,690	395	767	284	136	94	65	70
28	88	83	100	150	2,110	351	724	310	193	85	60	70
29	88	86	96	134	-------	324	900	1,520	237	79	63	70
30	83	98	70	115	-------	324	682	1,100	146	75	62	70
31	80	-------	80	124	-------	337	-------	724	-------	74	60	-------

Daily discharge, in second-feet, of Frankstown Branch of Juniata River at Williamsburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	60	341	137	450	114	1,100	320	350	127	74	51	52
2	1,360	289	133	485	120	975	371	314	122	78	51	56
3	2,650	489	133	561	147	767	341	291	114	76	47	56
4	680	543	139	504	167	641	326	291	109	69	47	52
5	365	434	57	434	173	561	300	247	106	69	47	51
6	258	374	220	402	167	561	321	237	109	74	47	50
7	208	338	258	402	149	634	724	237	120	363	48	47
8	173	306	362	417	137	1,490	581	232	106	130	50	44
9	149	280	300	434	124	1,080	504	201	116	94	50	45
10	133	250	303	383	118	833	468	190	217	86	41	48
11	122	245	326	317	114	923	434	181	211	78	45	45
12	111	234	261	362	124	925	417	175	137	76	44	42
13	104	217	470	542	173	811	386	177	120	74	51	47
14	100	280	1,700	542	217	767	402	179	109	84	62	78
15	100	833	1,110	522	177	662	350	206	102	81	74	53
16	99	561	789	468	147	621	390	188	100	64	66	50
17	92	715	662	402	149	581	601	173	118	52	62	56
18	87	1,650	724	371	157	718	504	169	127	56	64	48
19	86	1,280	1,220	210	261	1,040	504	224	107	57	58	45
20	84	925	1,030	230	373	789	434	280	99	54	54	41
21	84	703	724	206	485	682	473	199	94	60	56	41
22	3,330	561	661	190	450	661	1,280	177	84	54	56	44
23	7,040	485	542	177	434	522	950	163	83	57	58	44
24	1,520	434	484	163	752	468	789	155	84	57	57	42
25	878	402	434	157	6,090	450	662	159	86	56	56	44
26	641	356	402	153	3,350	601	542	145	89	56	57	42
27	485	341	468	149	2,360	434	468	143	97	51	58	43
28	402	417	601	143	1,490	386	417	151	84	51	66	40
29	338	300	522	143	-------	371	402	157	75	52	58	41
30	344	156	450	127	-------	256	371	141	72	51	54	41
31	365	-------	450	118	-------	335	-------	137	-------	52	50	-------
1930–31												
1	45	47	66	36	81	143	1,450	434	335	149	68	56
2	36	45	48	37	84	242	1,720	377	286	195	68	68
3	38	48	48	40	66	184	1,270	386	240	426	120	217
4	48	47	48	45	71	167	3,520	312	212	252	102	92
5	40	49	48	60	63	149	1,860	275	212	190	81	72
6	41	50	71	173	63	137	1,220	250	194	163	74	62
7	44	47	107	123	62	127	975	250	207	145	69	54
8	45	47	87	69	63	135	467	715	201	125	68	51
9	45	44	81	74	74	137	641	581	171	198	72	51
10	46	47	69	68	76	116	542	522	157	666	118	50
11	46	45	64	60	68	103	561	434	145	819	106	48
12	44	49	75	62	70	107	504	433	133	338	75	45
13	48	50	69	60	76	100	434	641	124	234	72	45
14	46	49	62	52	306	173	386	811	443	192	66	44
15	46	48	54	40	161	258	350	746	277	163	62	44
16	48	47	39	47	176	230	280	621	335	147	57	47
17	48	52	37	47	188	224	245	561	212	266	57	66
18	54	78	35	45	277	224	242	485	163	399	54	180
19	43	62	34	54	532	250	222	402	141	190	63	86
20	47	51	34	90	485	256	206	402	125	145	72	68
21	44	50	33	74	386	297	192	754	116	145	64	116
22	45	48	32	52	277	289	308	535	109	151	66	86
23	47	44	32	65	222	291	1,260	2,230	164	155	58	68
24	48	45	31	57	190	280	662	1,700	249	116	57	69
25	50	45	31	77	163	411	561	1,190	148	102	58	68
26	47	45	38	141	151	417	757	900	173	92	58	224
27	48	42	54	163	131	352	975	682	549	89	83	170
28	49	41	53	163	124	732	767	522	256	83	114	114
29	51	39	50	131	-------	3,100	641	450	194	86	113	89
30	48	38	45	103	-------	1,380	522	386	163	100	72	75
31	47	-------	39	106	-------	855	-------	402	-------	80	59	-------

Daily discharge, in second-feet, of Frankstown Branch of Juniata River at Williamsburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	72	61	162	246	531	179	3,740	304	137	79	50	45
2	66	62	98	312	504	168	2,030	271	135	94	48	45
3	66	60	83	302	522	164	1,590	212	164	83	50	45
4	62	58	80	542	804	188	1,160	196	135	77	54	45
5	63	54	95	434	1,150	286	950	206	122	79	50	44
6	62	56	90	1,000	789	237	811	250	114	77	47	45
7	66	58	76	1,300	703	222	662	212	110	80	46	45
8	66	56	67	878	757	200	581	206	100	86	47	44
9	100	58	76	682	621	180	664	388	97	73	45	45
10	79	55	144	542	621	170	811	728	97	62	45	45
11	64	56	287	417	621	175	1,240	1,830	92	58	50	44
12	62	59	710	359	542	185	1,400	1,400	103	55	46	45
13	60	64	1,260	344	468	180	1,130	1,100	143	55	45	45
14	59	74	1,190	309	402	170	900	855	137	56	43	45
15	67	66	695	275	371	155	767	703	116	55	44	49
16	70	65	468	258	344	155	662	581	142	75	45	48
17	76	62	359	247	371	220	561	485	199	61	45	46
18	98	62	291	264	380	480	504	417	192	55	52	43
19	90	60	245	230	306	431	450	359	129	53	64	50
20	80	60	215	208	277	724	402	326	114	54	47	48
21	74	59	187	201	245	662	365	297	112	54	44	46
22	69	59	176	208	256	901	344	269	236	65	44	47
23	64	62	194	470	232	1,040	309	242	130	55	44	46
24	62	60	183	1,050	190	1,020	283	222	98	50	44	43
25	60	58	319	621	217	855	283	206	89	50	44	42
26	60	54	220	504	210	878	286	194	86	50	44	41
27	59	50	183	542	208	1,100	258	181	100	59	44	44
28	59	64	170	434	217	1,310	232	172	107	67	45	62
29	61	66	165	386	196	1,240	210	162	86	86	45	52
30	64	95	160	989	-------	1,900	206	153	79	67	47	44
31	64	-------	162	674	-------	3,430	-------	143	-------	52	48	-------

Note.—Discharge estimated for periods of ice effect, Dec. 1-5, 1929, Jan. 20 to Feb. 18, Nov. 29, Dec. 17-31, 1930, Jan. 1-5, Dec. 28-30, 1931, Mar. 8-18, 1932. Records from chain-gage readings for June 21-25, June 28 to July 6, July 10 to Sept. 11, Oct. 4-8, 1930.

Monthly discharge, in second-feet, of Frankstown Branch of Juniata River at Williamsburg, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	110	74	86.3	0.293	0.34
November	126	74	86.3	.293	.33
December	237	70	106	.359	.41
January	492	80	163	.553	.64
February	2,690	88	371	1.26	1.31
March	2,780	224	1,020	3.46	3.99
April	3,670	260	1,180	4.00	4.46
May	1,660	284	624	2.12	2.44
June	564	128	224	.759	.85
July	142	72	96.1	.326	.38
August	94	60	69.9	.237	.27
September	337	48	88.6	.300	.33
The year	3,670	48	342	1.16	15.75
1929–30					
October	7,040	60	724	2.45	2.82
November	1,650	156	491	1.66	1.85
December	1,700	133	520	1.76	2.03
January	561	118	328	1.11	1.28
February	6,090	114	669	2.27	2.36
March	1,490	335	700	2.37	2.73
April	1,280	300	501	1.70	1.90
May	350	137	202	.685	.79
June	217	72	111	.376	.42
July	363	51	77.0	.261	.30
August	74	41	54.4	.184	.21
September	78	40	47.6	.161	.18
The year	7,040	40	367	1.24	16.87
1930–31					
October	54	36	45.9	.156	.18
November	78	38	48.0	.163	.18
December	107	31	52.4	.178	.21
January	173	36	77.9	.264	.30
February	532	62	167	.566	.59
March	3,100	100	383	1.30	1.50
April	3,520	192	801	2.72	3.04
May	2,230	250	625	2.12	2.44
June	549	109	214	.725	.81
July	819	80	213	.722	.83
August	120	54	75.0	.254	.29
September	224	44	84.2	.285	.32
The year	3,520	31	232	.786	10.69
1931–32					
October	100	59	68.4	.232	.27
November	95	54	61.4	.208	.23
December	1,260	67	284	.963	1.11
January	1,300	201	523	1.77	2.04
February	1,150	190	450	1.53	1.65
March	3,430	155	620	2.10	2.42
April	3,740	206	793	2.69	3.00
May	1,830	143	428	1.45	1.67
June	336	79	123	.417	.47
July	94	50	65.0	.220	.25
August	64	43	47.0	.159	.18
September	62	41	45.9	.156	.17
The year	3,740	41	292	.990	13.46

JUNIATA RIVER AT NEWPORT

LOCATION.—Water-stage recorder at highway bridge at Newport, Perry County. Zero of gage is 363.32 feet above mean sea level. Chain gage at same site and datum used prior to July 16, 1929.

DRAINAGE AREA.—3,380 square miles.

RECORDS AVAILABLE.—March, 1899, to July, 1906; January, 1907, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 47,500 second-feet Apr. 17 (gage height, 15.40 feet from graph based on gage readings); minimum, 372 second-feet Sept. 27 (gage height, 2.79 feet).

Maximum discharge during year ending Sept. 30, 1930, 57,500 second-feet Oct. 23 (gage height, 17.26 feet); minimum, 360 second-feet Sept. 30 (gage height, 2.77 feet).

Maximum discharge during year ending Sept. 30, 1931, 35,800 second-feet May 24 (gage height, 12.94 feet); minimum, 300 second-feet Nov. 28 (gage height, 2.70 feet).

Maximum discharge during year ending Sept. 30, 1932, 40,600 second-feet Apr. 1 (gage height, 13.99 feet); minimum, 286 second-feet Sept. 22, 23, 25-27 (gage height, 2.68 feet).

1899-1906, 1907-1931: Maximum discharge, about 114,000 second-feet Mar. 1, 1902 (gage height, 25.3 feet); minimum (estimated), 260 second-feet Aug. 27, 1925 (gage height, 2.71 feet).

REMARKS.—Records good except those based on chain-gage readings, which are fair, and those for periods of ice effect, which are poor. Slight regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	910	730	835	750	850	20,200	3,720	7,760	4,620	2,020	655	450
2	927	655	1,190	1,300	900	14,300	2,880	7,440	4,320	1,680	610	440
3	1,080	685	1,350	1,000	900	11,000	2,880	13,500	3,580	1,680	610	540
4	927	670	1,430	850	1,000	10,700	2,750	18,700	3,150	1,310	610	440
5	850	730	1,580	900	1,100	12,800	3,430	14,300	3,020	1,190	597	420
6	1,190	700	1,190	2,370	1,300	21,800	15,800	11,000	2,620	1,080	610	450
7	944	805	1,230	1,800	1,800	23,800	12,500	11,000	2,130	1,100	610	506
8	1,120	700	1,050	1,200	2,600	20,200	10,600	11,000	2,370	1,020	610	655
9	805	685	895	1,000	2,200	12,500	8,080	9,040	2,020	1,080	610	584
10	790	685	865	1,000	1,700	9,040	7,120	7,760	1,680	1,050	597	610
11	610	640	715	2,370	1,400	6,800	9,040	6,800	1,310	1,060	610	1,080
12	700	655	800	2,600	1,200	6,170	12,800	6,170	1,350	978	597	820
13	790	700	800	1,900	1,100	7,760	14,300	5,860	1,790	910	640	1,120
14	685	670	790	1,300	1,000	11,800	11,800	5,550	1,680	820	655	2,370
15	610	685	895	1,000	900	20,200	10,000	4,930	1,680	790	610	2,130
16	655	670	1,140	900	900	21,400	15,800	4,930	1,580	820	610	1,290
17	700	655	1,050	900	1,000	18,000	41,700	4,930	1,310	775	597	978
18	780	685	1,120	1,200	1,500	13,500	38,900	4,320	1,180	775	584	865
19	715	700	1,580	2,130	2,600	10,700	22,600	4,320	1,230	625	545	685
20	775	775	1,230	3,290	2,200	8,400	15,000	4,620	1,100	640	558	700
21	700	978	1,180	3,580	1,700	7,760	12,500	4,620	1,450	640	532	640
22	700	1,050	625	1,900	1,500	6,170	13,200	4,320	1,180	655	506	545
23	745	1,010	700	1,580	1,400	6,170	12,100	4,320	1,270	655	506	470
24	685	1,030	700	1,580	1,400	5,860	10,400	3,580	4,930	597	480	430
25	865	978	700	1,350	1,600	5,240	8,720	3,430	3,580	640	480	410
26	850	715	730	1,300	5,000	4,930	10,000	3,150	4,320	805	450	420
27	835	730	800	1,200	14,000	4,620	10,700	2,880	3,150	910	480	400
28	805	775	800	1,100	23,800	4,320	9,040	3,020	2,500	910	480	400
29	715	805	750	1,000	-------	3,430	9,040	2,750	2,620	790	470	470
30	730	715	750	900	-------	3,430	9,040	4,620	2,370	730	480	440
31	790	-------	750	850	-------	3,580	-------	5,240	-------	625	470	-------

Daily discharge, in second-feet, of Juniata River at Newport, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	448	3,520	2,060	5,580	1,800	14,500	3,630	3,520	1,260	1,030	458	458
2	3,270	3,390	2,220	5,430	1,800	11,200	3,570	3,470	1,260	808	458	458
3	13,100	3,470	2,100	5,580	1,900	9,330	3,440	3,260	1,210	888	438	469
4	18,600	4,560	2,050	5,730	2,000	7,640	3,370	3,060	1,170	808	438	448
5	9,500	5,580	2,350	5,280	2,200	6,500	3,210	2,780	1,150	808	438	427
6	5,140	5,280	2,700	4,700	2,200	5,730	3,080	2,580	1,030	840	438	416
7	3,470	4,560	2,800	4,280	2,100	5,580	4,990	2,440	1,060	1,830	416	438
8	2,580	4,140	2,900	4,280	1,980	17,600	6,660	2,440	1,140	1,280	416	438
9	2,030	3,520	3,080	4,420	1,900	18,600	5,880	2,440	1,190	1,570	427	427
10	1,590	3,210	3,030	4,280	1,850	13,800	5,430	2,150	1,590	1,420	427	416
11	1,470	2,700	2,700	4,000	1,820	10,900	4,840	2,120	1,820	1,030	427	396
12	1,230	2,760	2,600	3,600	2,000	10,000	4,560	1,900	1,610	872	406	385
13	1,120	2,580	2,550	3,650	2,300	9,500	4,280	1,690	1,450	776	416	396
14	1,050	2,480	2,510	4,280	2,700	8,310	4,000	1,840	1,230	840	416	396
15	938	2,530	6,580	4,700	3,340	7,140	3,790	2,340	1,260	746	458	406
16	1,010	4,140	6,980	4,700	3,290	6,500	3,760	3,000	1,140	702	490	406
17	920	4,560	6,040	4,280	2,530	6,040	4,280	2,780	1,050	731	458	427
18	974	9,270	5,580	4,000	2,220	5,730	4,840	2,220	1,300	746	469	438
19	731	17,900	5,730	3,340	2,700	5,880	4,840	2,150	2,400	716	490	427
20	688	16,400	6,660	2,930	3,520	6,500	4,560	2,340	2,100	673	490	427
21	702	10,900	7,640	2,220	3,870	6,040	4,280	2,560	1,670	630	480	427
22	3,860	8,480	6,190	2,020	4,280	5,430	4,700	2,530	1,260	615	480	406
23	43,200	6,660	5,280	1,950	4,140	4,990	6,980	2,610	1,140	602	469	385
24	40,600	5,730	4,840	1,900	4,000	4,420	6,980	1,990	992	578	469	427
25	16,400	4,840	4,420	1,870	9,170	4,280	6,500	1,880	1,030	578	458	416
26	9,330	4,560	4,420	1,850	28,400	4,700	5,730	1,840	1,010	578	469	406
27	6,660	4,000	3,840	1,850	28,400	5,280	5,140	1,680	1,030	565	469	406
28	5,140	3,870	4,000	1,900	21,000	4,840	4,560	1,630	920	540	458	385
29	4,140	3,600	4,990	1,950	-------	4,420	4,140	1,630	992	515	448	376
30	3,790	3,120	5,580	1,900	-------	4,000	3,870	1,590	920	490	448	368
31	3,260	-------	5,580	1,850	-------	3,820	-------	1,510	-------	469	458	-------
1930–31												
1	368	351	500	520	1,000	940	9,160	4,840	4,620	1,410	1,200	1,370
2	360	406	420	520	960	830	19,700	4,140	4,480	1,350	1,080	1,170
3	360	416	420	540	920	843	18,600	3,820	4,080	2,020	982	1,100
4	334	427	400	600	900	1,120	14,100	3,470	3,240	2,720	998	1,070
5	326	406	420	660	880	1,370	16,700	3,340	2,790	4,620	950	1,180
6	342	376	440	800	860	1,280	14,900	2,900	2,680	3,420	1,030	1,070
7	342	385	480	1,050	850	1,100	10,900	2,560	2,400	2,360	1,080	934
8	342	427	520	1,200	840	1,160	8,990	3,760	3,580	3,320	1,060	859
9	342	406	620	1,150	900	1,530	7,470	13,400	2,790	3,420	918	747
10	351	416	600	1,100	880	1,510	5,880	10,000	2,470	5,150	1,970	776
11	334	416	560	1,000	800	1,280	5,140	7,800	2,250	14,700	3,010	762
12	351	438	530	860	750	1,150	4,420	6,340	1,980	14,200	2,360	703
13	342	427	500	800	688	996	4,000	6,500	1,880	7,590	1,760	659
14	342	427	480	740	905	888	3,600	9,850	1,740	4,760	1,280	618
15	368	438	460	700	995	792	3,240	14,500	1,540	3,630	1,250	605
16	360	427	430	690	1,300	919	2,830	13,400	1,740	3,100	998	580
17	360	448	400	680	1,530	1,150	2,560	10,200	2,020	2,400	918	644
18	351	469	390	690	2,290	1,430	2,290	7,970	2,320	2,290	903	747
19	351	490	390	700	2,150	1,730	2,060	6,500	1,820	4,860	791	703
20	342	469	410	720	2,410	1,710	2,020	5,880	1,590	3,730	791	1,020
21	368	469	400	720	2,880	1,860	1,820	8,860	1,370	3,500	823	1,030
22	351	490	380	710	2,660	1,730	1,730	13,000	1,260	3,340	839	1,160
23	342	448	380	700	2,370	1,800	5,110	24,400	1,210	3,300	839	1,110
24	334	406	390	700	1,860	1,720	11,200	33,200	1,320	3,050	839	950
25	334	448	390	740	1,590	1,750	8,310	22,900	1,570	2,470	823	855
26	334	438	420	900	1,380	1,800	6,500	16,000	1,820	2,000	870	807
27	368	416	520	1,040	1,140	2,150	6,500	11,600	2,890	1,710	1,090	918
28	406	300	660	1,280	1,060	2,270	6,820	8,820	2,880	1,350	1,300	1,130
29	427	290	610	1,260	------	6,130	6,190	7,000	2,250	1,420	1,520	1,200
30	406	380	560	1,200	------	14,900	5,130	5,770	1,670	1,280	1,820	1,210
31	497	-------	520	1,100	-------	12,700	-------	5,040	-------	1,250	1,730	-------

Daily discharge, in second-feet, of Juniata River at Newport, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	1,090	592	618	1,970	5,480	1,940	38,000	2,470	1,840	1,210	605	439
2	934	580	673	3,700	4,760	1,820	34,400	3,050	1,690	1,130	618	428
3	855	580	815	6,680	4,340	1,740	23,400	3,340	1,600	1,010	644	439
4	776	567	833	6,220	4,080	1,670	16,400	2,880	1,730	1,060	605	528
5	732	554	693	5,330	5,330	1,760	12,300	2,700	2,030	998	580	1,130
6	762	554	747	4,620	9,160	2,340	10,000	2,560	2,130	950	515	703
7	688	541	696	7,100	8,650	2,880	8,310	2,540	1,650	934	515	528
8	673	541	708	8,820	6,680	2,500	7,000	2,610	1,480	934	515	493
9	732	541	851	7,640	5,770	2,100	6,220	2,770	1,320	886	493	493
10	703	528	747	6,220	5,330	1,800	7,000	3,880	1,180	839	482	450
11	718	515	689	5,040	4,760	1,700	9,330	10,100	1,130	791	460	428
12	688	515	886	4,080	4,480	1,800	10,200	20,200	1,200	791	460	417
13	659	541	2,320	3,630	4,080	1,800	10,900	19,000	1,230	703	450	370
14	644	528	4,210	3,120	3,680	1,700	9,500	16,400	1,390	703	439	353
15	644	541	5,920	2,930	3,240	1,650	8,140	13,800	1,520	631	460	353
16	644	554	5,330	2,700	2,950	1,600	7,000	10,600	1,440	605	439	335
17	618	644	3,600	2,510	2,750	1,700	6,070	8,140	1,610	644	397	317
18	605	567	2,820	2,660	2,860	2,300	5,480	6,530	1,460	592	428	317
19	605	528	2,250	2,120	2,880	3,940	4,900	5,480	1,420	515	482	326
20	618	541	1,920	2,090	2,700	4,760	4,480	4,760	1,460	554	482	317
21	618	554	1,710	1,910	2,540	5,770	4,080	4,210	1,280	605	504	326
22	618	541	1,540	1,880	2,290	5,920	3,710	3,780	1,280	732	504	293
23	618	554	1,420	1,980	2,100	6,840	3,550	3,470	1,250	1,090	504	293
24	673	629	1,410	2,000	2,000	8,310	3,320	3,050	1,500	718	482	300
25	631	515	1,390	4,310	1,900	8,820	2,700	2,840	1,260	688	460	286
26	580	482	1,320	3,860	1,820	7,810	3,000	2,700	1,130	631	406	293
27	580	493	1,560	3,600	1,820	7,160	2,880	2,430	1,350	631	388	293
28	605	541	1,410	3,550	1,960	8,820	2,680	2,340	1,650	776	370	334
29	618	528	1,330	3,370	2,020	11,200	2,630	2,190	1,690	703	362	326
30	605	554	1,300	3,520	-------	14,500	2,320	2,040	1,590	618	428	308
31	605	-------	1,260	5,270	-------	22,800	-------	1,860	-------	618	400	-------

Note.—Discharge estimated for periods of ice effect, Dec. 12, 13, 23-25, 27-31, 1928, Jan. 1-5, 7-10, 12-18, Jan. 26 to Feb. 27, Dec. 4, 5, 12, 13, 1929, Jan. 22 to Feb. 14, Nov. 29 to Dec. 31, 1930, Jan. 1 to Feb. 12, 1931, Mar. 8-18, 1932, and for periods during which recorder stopped, Dec. 18, 19, 1931, Feb. 29 to Mar. 2, 1932. Records based on chain-gage readings for Apr. 9-12, Aug. 16, 17, Oct. 10 to Dec. 22, 1930.

Monthly discharge, in second-feet, of Juniata River at Newport, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	1,190	610	804	0.238	0.27
November	1,050	640	756	.224	.25
December	1,580	625	975	.288	.33
January	3,580	750	1,490	.441	.51
February	23,800	850	2,810	.831	.87
March	23,800	3,340	10,900	3.22	3.71
April	41,700	2,750	12,200	3.61	4.03
May	18,700	2,750	6,640	1.96	2.26
June	4,930	1,100	2,370	.701	.78
July	2,020	625	947	.280	.32
August	655	450	563	.166	.19
September	2,370	400	722	.214	.24
The year	41,700	400	3,430	1.01	13.76

Monthly discharge, in second-feet, of Juniata River at Newport. 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929–30					
October	43,200	448	6,680	1.98	2.28
November	17,900	2,480	5,410	1.60	1.78
December	7,640	2,050	4,190	1.24	1.43
January	5,730	1,850	3,560	1.05	1.21
February	28,400	1,800	5,340	1.58	1.64
March	18,600	3,820	7,720	2.28	2.63
April	6,980	3,080	4,660	1.38	1.54
May	3,520	1,510	2,300	.680	.78
June	2,400	920	1,280	.379	.42
July	1,830	469	815	.241	.28
August	490	406	450	.133	.15
September	469	368	417	.123	.14
The year	43,200	368	3,560	1.05	14.28
1930–31					
October	427	326	357	.106	.12
November	490	290	418	.124	.14
December	660	380	471	.139	.16
January	1,280	520	841	.249	.29
February	2,880	688	1,350	.399	.42
March	14,900	792	2,340	.692	.80
April	19,700	1,730	7,276	2.15	2.40
May	33,200	2,560	9,610	2.84	3.27
June	4,620	1,210	2,340	.692	.77
July	14,700	1,260	5,480	1.62	1.87
August	3,010	791	1,220	.361	.42
September	1,370	580	922	.273	.30
The year	33,200	290	2,580	.763	10.37
1931–32					
October	1,090	580	682	.202	.23
November	644	482	548	.162	.18
December	5,920	618	1,710	.506	.58
January	8,820	1,880	4,010	1.19	1.37
February	9,160	1,820	3,880	1.15	1.24
March	22,800	1,600	4,890	1.45	1.67
April	38,000	2,320	9,000	2.66	2.97
May	20,200	1,860	5,640	1.67	1.92
June	2,130	1,130	1,490	.441	.49
July	1,210	515	784	.232	.27
August	644	362	482	.143	.16
September	1,130	286	407	.120	.13
The year	38,000	286	2,790	.825	11.21

SUSQUEHANNA BASIN—STATION NO. 29

LITTLE JUNIATA RIVER AT TYRONE

LOCATION.—Chain gage at Pennsylvania Avenue Bridge at Tyrone, Blair County. Zero of gage is 877.04 feet above mean sea level.

DRAINAGE AREA.—107 square miles.

RECORDS AVAILABLE.—August, 1918, to December, 1919; April, 1920, to September, 1931 (discontinued).

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 7.06 feet (estimated from hydrograph) Apr. 5; minimum, 1.02 feet Aug. 21.

Maximum stage during year ending Sept. 30, 1930, 6.50 feet (estimated from hydrograph) Oct. 22; minimum, 0.85 foot Sept. 30.

Maximum stage during year ending Sept. 30, 1931, 5.70 feet May 23; minimum, 0.80 foot Nov. 27.

1918-1919, 1920-1931: Maximum stage, 8.9 feet (estimated from hydrograph) June 29, 1924; minimum, that of Nov. 27, 1930.

REMARKS.—Gage-height record good. Gage heights obtained at this station are for flood warning purposes. Discharge not determined. The following current-meter discharge measurements were obtained.

Table of Discharge Measurements

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1929	Feet	Second-feet	1929	Feet	Second-feet	1930	Feet	Second-feet
Mar. 19	3.28	423	Sept. 2	1.09	14.8	Aug. 8	0.95	16.5
June 20	1.39	53	1930			Sept. 26	.98	13.2
Aug. 21	1.03	22.7	Aug. 8	.95	16.2			

Daily mean gage height, in feet, of Little Juniata River at Tyrone, 1928-1931.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	1.28	1.18	1.87	1.36	1.46	2.86	2.23	2.78	2.20	1.29	1.12	1.08
2	1.28	1.20	1.57	1.36	1.38	2.77	2.10	2.86	2.09	1.28	1.10	1.08
3	1.22	1.25	1.52	1.21	1.38	2.72	2.06	3.76	2.03	1.18	1.11	1.10
4	1.20	1.32	1.52	1.26	1.31	2.81	2.16	3.25	1.99	1.14	1.26	1.10
5	1.15	1.30	1.53	1.30	1.32	4.36	5.13	3.04	1.93	1.16	1.18	1.06
6	1.25	1.24	1.45	2.70	1.38	3.61	4.16	3.07	1.87	1.18	1.15	1.19
7	1.22	1.20	1.26	2.04	1.46	3.72	3.41	3.24	1.78	1.42	1.16	1.19
8	1.12	1.26	1.29	1.40	1.42	3.08	3.10	2.99	1.85	1.25	1.13	1.45
9	1.19	1.23	1.23	1.46	1.48	2.87	2.92	2.91	1.72	1.26	1.20	1.37
10	1.15	1.23	1.12	1.74	1.54	2.54	3.23	2.73	1.64	1.25	1.12	1.28
11	1.16	1.32	1.24	1.61	1.32	2.79	3.01	2.58	1.62	1.16	1.12	1.12
12	1.18	1.28	1.34	1.54	1.26	2.92	3.38	2.53	1.58	1.13	1.16	1.08
13	1.19	1.28	1.34	1.46	1.25	3.50	3.08	2.50	1.61	1.10	1.15	1.12
14	1.17	1.24	1.44	1.19	1.32	5.15	2.95	2.96	1.52	1.18	1.10	1.17
15	1.14	1.23	1.60	1.36	1.34	5.13	3.24	2.52	1.44	1.10	1.14	1.17
16	1.16	1.23	1.47	1.33	1.38	4.74	4.56	2.39	1.42	1.10	1.06	1.10
17	1.16	1.24	1.47	1.36	1.58	4.07	4.45	2.31	1.40	1.16	1.08	1.31
18	1.27	1.22	1.67	1.95	1.66	3.54	3.63	2.26	1.39	1.20	1.06	1.18
19	1.30	1.33	1.48	2.95	1.76	3.32	3.33	2.60	1.36	1.16	1.26	1.10
20	1.19	1.50	1.57	2.23	1.68	3.08	3.25	2.37	1.38	1.18	1.08	1.14
21	1.16	1.37	1.48	1.85	1.34	2.87	3.91	2.67	1.36	1.16	1.04	1.11
22	1.15	1.41	1.39	1.80	1.47	2.79	3.56	2.45	1.32	1.14	1.06	1.10
23	1.22	1.35	1.38	1.95	1.34	2.95	3.40	2.39	1.31	1.16	1.10	1.10
24	1.30	1.29	1.38	1.86	1.52	2.82	3.14	2.40	1.47	1.14	1.14	1.13
25	1.40	1.22	1.37	1.95	1.78	2.71	3.15	2.31	1.46	1.93	1.11	1.12
26	1.33	1.18	-------	1.77	4.41	2.63	3.27	2.17	1.40	1.45	1.08	1.12
27	1.24	1.29	-------	1.61	3.65	2.52	2.94	2.11	1.31	1.22	1.09	1.12
28	1.33	1.27	-------	1.67	3.25	2.45	2.90	2.04	2.05	1.18	1.07	1.14
29	1.26	1.29	1.29	1.50	-------	2.32	3.04	2.60	1.75	1.18	1.08	1.16
30	1.22	1.52	1.27	1.62	-------	2.41	2.90	2.43	1.40	1.15	1.07	1.14
31	1.20	-------	1.13	1.46	-------	2.33	-------	2.32	-------	1.12	1.06	-------

Daily mean gage height, in feet, of Little Juniata River at Tyrone, 1928-1931—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1.13	2.23	1.81	2.42	1.87	3.60	2.29	2.15	1.46	1.15	1.00	0.92
2	2.78	2.25	2.09	2.46	1.84	3.39	2.69	2.07	1.40	1.18	.92	.99
3	4.42	2.48	1.99	2.68	1.90	3.18	2.66	2.02	1.36	1.17	.88	1.50
4	2.42	2.54	1.96	2.48	1.92	3.02	2.62	1.92	1.32	1.08	.90	.96
5	1.89	2.40	1.99	2.31	1.96	2.94	2.48	1.87	1.34	1.05	.98	.96
6	1.68	2.30	1.98	2.29	1.86	2.84	2.48	1.84	1.34	1.10	.96	.90
7	1.56	2.22	2.16	2.34	1.72	2.92	2.67	1.80	1.38	1.73	.95	.92
8	1.42	2.14	2.56	2.44	1.74	3.65	2.80	1.74	1.34	1.24	.95	.92
9	1.38	2.08	2.25	2.50	1.64	3.35	2.66	1.71	1.38	1.20	.95	.96
10	1.34	2.01	2.21	2.39	1.82	3.08	2.58	1.68	1.78	1.18	.92	1.02
11	1.35	2.06	2.22	2.19	1.70	3.25	2.52	1.62	1.54	1.15	.90	.97
12	1.34	1.96	2.21	2.55	1.63	3.22	2.44	1.61	1.36	1.14	.94	.98
13	1.34	1.92	2.72	2.97	1.92	2.99	2.40	1.60	1.32	1.15	.96	1.02
14	1.32	1.93	3.75	2.91	2.02	2.87	2.36	1.62	1.31	1.31	1.08	1.08
15	1.31	3.25	3.24	2.94	1.73	2.74	2.30	1.82	1.26	1.16	1.08	.91
16	1.32	3.00	3.02	2.75	1.75	2.69	2.43	1.71	1.20	1.09	1.02	.93
17	1.26	3.50	2.96	2.60	1.81	2.62	2.93	1.62	1.56	1.07	1.04	.98
18	1.22	4.22	3.35	2.57	1.77	-------	2.86	1.68	1.44	1.08	1.00	.92
19	1.22	3.71	4.42	2.00	1.84	2.70	2.81	1.90	1.35	1.08	1.00	.92
20	1.20	3.35	3.65	2.35	2.82	2.51	2.66	1.95	1.25	1.02	1.00	.90
21	1.22	3.06	3.12	2.34	2.73	2.47	2.76	1.76	1.22	.97	1.02	.90
22	3.80	2.88	2.92	2.32	2.62	2.27	3.36	1.68	1.18	1.04	1.04	.94
23	4.30	2.67	2.90	2.16	2.64	2.23	2.99	1.64	1.17	1.04	1.04	.95
24	3.34	2.60	2.77	1.81	2.66	2.20	2.88	1.62	1.28	1.02	1.02	.93
25	2.88	2.50	2.64	2.17	4.61	2.20	2.78	1.61	1.26	1.01	1.16	.97
26	2.78	2.42	2.49	1.98	5.29	2.59	2.58	1.56	1.30	.97	1.06	.94
27	2.54	2.38	2.42	1.98	4.75	2.29	2.42	1.52	1.31	.96	1.04	.96
28	2.28	2.46	2.62	2.00	3.90	2.28	2.38	1.57	1.30	.94	1.06	.96
29	2.16	2.31	2.56	1.92	-------	2.30	2.32	1.56	1.20	.96	.98	.90
30	2.30	1.88	2.47	1.74	-------	2.35	2.22	1.52	1.11	1.03	.95	.86
31	2.41	-------	2.45	1.65	-------	2.34	-------	1.50	-------	1.02	.92	-------
1930-31												
1	.88	.92	1.20	1.00	1.14	1.68	4.25	2.64	2.95	1.82	1.75	1.65
2	.88	.87	.96	.95	1.12	1.80	4.30	2.62	2.82	1.93	1.82	1.84
3	.91	.87	.90	1.00	.97	1.66	3.97	2.70	2.71	2.15	1.90	1.88
4	.88	1.02	.98	1.10	1.07	1.66	4.95	2.50	2.60	2.30	1.86	1.74
5	.82	.98	1.00	1.22	.94	1.55	4.27	2.80	2.64	1.94	1.74	1.66
6	.88	.90	1.22	1.59	1.03	1.52	3.85	2.77	2.47	1.88	1.70	1.62
7	.90	.89	1.28	1.28	1.00	1.49	3.58	3.00	2.60	1.85	1.67	1.60
8	.94	.91	1.29	1.10	.99	1.67	3.50	4.00	2.48	1.82	1.70	1.60
9	.96	.98	1.16	1.06	1.02	1.52	2.93	3.46	2.41	2.32	1.79	1.65
10	.91	.96	1.15	1.04	1.19	1.44	2.88	3.52	2.34	2.46	2.36	1.68
11	.94	.96	1.10	1.02	1.06	1.40	2.85	3.38	2.29	2.20	1.96	1.61
12	.87	1.01	1.14	1.07	1.08	1.40	2.72	3.25	2.19	1.95	1.82	1.60
13	.84	1.02	1.04	1.12	1.16	1.33	2.62	3.70	2.14	1.83	1.77	1.60
14	.96	1.00	1.04	1.06	1.60	1.52	2.54	3.98	2.14	1.82	1.72	1.60
15	.92	.98	1.04	.99	1.33	1.71	2.37	3.78	2.16	1.82	1.70	1.59
16	.91	.98	.92	.96	1.24	1.69	2.30	3.61	2.26	1.82	1.64	1.62
17	.92	.98	.93	1.04	1.40	1.70	2.16	3.48	2.25	2.01	1.66	2.05
18	.88	1.22	.96	1.04	1.71	1.72	2.05	3.26	2.11	2.30	1.66	1.81
19	.88	1.01	1.04	1.06	2.38	2.00	2.00	3.48	2.04	1.92	1.85	1.61
20	.88	.96	1.08	1.28	2.23	1.92	1.92	3.78	2.07	1.86	1.72	1.54
21	.88	.94	1.08	1.04	1.99	2.01	1.90	4.08	2.00	1.84	1.66	1.95
22	.92	.94	1.02	.96	1.81	2.10	2.70	3.78	1.93	2.00	1.64	1.74
23	.92	.90	1.04	.98	1.65	2.03	3.74	5.45	2.34	2.01	1.62	1.69
24	1.02	.91	1.03	1.04	1.65	2.04	3.09	5.30	2.08	1.86	1.60	1.79
25	1.02	.96	1.01	1.12	1.66	2.72	2.85	4.65	1.96	1.80	1.61	1.78
26	.90	.94	1.04	1.46	1.66	2.50	3.37	4.10	1.92	1.74	1.76	2.42
27	.85	.90	1.09	1.48	1.56	2.40	3.50	3.72	2.08	1.76	1.97	1.97
28	.97	.87	1.12	1.48	1.50	3.55	3.28	3.45	1.94	1.72	1.87	1.85
29	1.01	.84	1.11	1.20	-------	4.90	3.14	3.24	1.84	1.76	1.87	1.74
30	.99	.94	1.06	1.26	-------	3.72	2.72	3.12	1.83	1.87	1.78	1.68
31	.96	-------	1.01	1.24	-------	3.36	-------	3.42	-------	1.70	1.69	-------

SHAVER CREEK NEAR PETERSBURG

LOCATION.—Chain gage on highway bridge 3½ miles northeast of Petersburg, Huntingdon County, and 4½ miles above confluence with Juniata River.

DRAINAGE AREA.—46.2 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1930, 957 second-feet Oct. 22 (gage height, 5.62 feet); minimum, 1.2 second-feet Aug. 7, 9, 12 (gage height, 0.46 foot).

Maximum discharge during year ending Sept. 30, 1931, 1,290 second-feet May 8 (gage height, 6.85 feet); minimum, 2.0 second-feet Oct. 1, 6 (gage height, 0.60 foot).

Maximum discharge during year ending Sept. 30, 1932, 792 second-feet Mar. 31 (gage height, 4.98 feet); minimum, 0.9 second-foot Sept. 19 (gage height, 0.46 foot).

Maximum stage known, 9.2 feet during flood of 1889 (discharge not determined).

REMARKS.—Records fair. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1929-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	-------	27	22	49	10	137	51	46	15	7.6	2.3	2.1
2	-------	23	19	53	14	117	57	44	13	7.6	2.3	2.3
3	117	66	14	57	20	85	45	40	13	6.7	2.3	2.8
4	40	53	9.2	40	22	83	43	34	11	5.8	2.3	2.1
5	23	34	11	34	28	65	40	33	10	5.3	1.9	2.3
6	16	28	16	33	20	60	48	32	17	6.7	1.7	2.3
7	15	23	32	33	15	65	152	30	22	27	1.7	2.3
8	13	24	39	39	14	204	88	29	15	8.2	1.5	2.4
9	10	21	25	50	14	94	78	26	14	6.4	1.5	2.3
10	11	20	21	39	13	70	64	25	23	5.6	1.9	2.4
11	11	22	20	28	13	105	56	18	18	4.8	1.5	2.3
12	11	20	27	44	13	103	53	20	13	4.8	1.4	2.5
13	9.6	17	65	83	15	78	53	20	10	4.4	1.9	2.8
14	11	28	143	70	34	65	52	25	9.6	5.8	2.6	3.0
15	12	133	101	60	21	60	50	58	11	5.6	3.0	3.0
16	11	62	56	49	16	60	65	45	8.2	4.8	3.4	2.6
17	11	163	56	42	16	56	77	33	9.6	4.4	3.4	3.4
18	9.6	416	99	38	19	61	70	30	26	4.4	3.4	3.0
19	12	159	273	33	27	69	67	35	12	4.4	2.6	2.8
20	11	92	132	28	26	55	58	51	8.2	4.4	2.8	2.6
21	13	70	81	26	56	49	78	36	7.6	4.1	2.3	3.0
22	349	56	65	22	44	45	208	32	7.9	3.9	2.3	3.2
23	137	46	56	19	40	42	188	26	6.4	3.9	2.4	3.0
24	53	46	50	17	70	45	81	26	8.2	3.9	2.6	2.6
25	40	40	44	15	533	42	72	25	6.4	3.4	2.3	2.8
26	29	36	42	13	733	86	63	20	7.6	3.4	2.1	3.0
27	25	35	47	11	356	56	56	19	8.8	3.4	2.3	3.4
28	22	36	60	10	184	56	52	25	7.3	3.2	1.9	3.2
29	19	33	60	10	-------	58	51	22	7.0	2.8	2.1	3.4
30	23	28	49	9.5	-------	56	50	19	6.7	2.6	1.9	3.0
31	30	-------	54	9.5	-------	53	-------	18	-------	2.6	2.3	-------

Daily discharge, in second-feet, of Shaver Creek near Petersburg, 1929-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	3.4	6.7	7.5	4.8	5.2	9.8	198	45	56	9.2	6.7	3.3
2	3.4	6.7	6.0	4.3	4.8	13	184	40	49	29	6.4	8.2
3	3.9	7.0	5.0	4.5	4.5	9.6	108	59	42	15	7.0	14
4	3.9	7.3	5.0	6.0	4.3	8.2	241	45	39	117	8.5	9.2
5	3.9	6.4	6.0	8.0	41	7.0	105	36	36	42	6.7	7.3
6	3.4	6.4	9.0	19	4.0	7.0	77	34	32	30	6.1	6.4
7	3.9	6.1	20	14	3.9	7.0	75	49	66	22	6.1	5.1
8	3.9	6.4	19	10	4.1	8.2	61	776	43	17	5.6	4.8
9	4.1	6.4	11	8.0	5.1	14	53	248	33	16	9.2	4.8
10	4.4	7.3	8.8	7.0	5.0	18	44	184	28	60	182	4.4
11	4.1	7.0	7.6	6.5	4.0	14	40	111	25	45	30	4.4
12	3.9	7.0	8.5	7.0	3.8	11	34	89	25	23	14	3.9
13	4.4	7.0	7.6	6.5	4.0	13	32	291	20	17	8.8	4.4
14	3.9	7.0	7.0	6.1	4.5	10	29	365	19	17	8.2	3.9
15	4.4	6.4	6.7	6.0	5.0	10	29	184	22	14	5.8	4.1
16	4.6	6.7	4.8	5.9	7.0	11	25	117	26	13	5.0	4.6
17	4.6	7.3	4.1	6.2	15	15	22	98	23	25	4.2	9.2
18	5.6	8.5	4.1	6.4	80	19	21	83	22	18	4.2	7.6
19	5.8	8.5	4.0	8.0	120	22	18	70	19	13	7.5	5.3
20	4.8	6.7	4.6	10	81	18	15	164	14	12	5.2	5.6
21	5.3	6.7	4.2	9.0	55	17	17	410	14	10	4.5	5.6
22	5.3	6.4	4.0	7.5	39	15	43	137	13	20	4.2	4.6
23	5.6	5.3	3.9	6.5	20	13	188	755	15	15	4.2	4.4
24	5.8	5.6	3.8	8.0	14	13	81	368	17	11	4.2	4.6
25	5.8	6.1	3.7	12	17	22	63	211	13	8.8	3.8	3.9
26	5.8	6.1	4.5	26	12	23	105	144	14	8.5	4.2	18
27	6.4	5.8	8.0	10	10	17	91	101	14	7.9	6.8	6.7
28	7.0	4.3	7.5	8	9.6	49	70	83	11	7.6	7.5	5.1
29	7.0	4.0	7.5	7	-------	189	61	70	10	8.5	5.8	4.1
30	6.4	4.2	6.0	6.5	-------	72	51	64	9.6	10	4.0	4.1
31	6.4	-------	5.0	6.0	-------	47	-------	76	-------	7.6	3.8	-------
1931–32												
1	3.9	18	20	64	60	29	470	62	21	8.8	3.6	2.4
2	3.9	17	18	223	60	29	260	50	21	10	3.6	2.2
3	3.9	17	17	94	65	28	175	37	22	8.5	7.4	2.4
4	4.4	16	15	60	105	34	124	36	20	8.8	7.4	2.6
5	4.4	17	17	48	117	46	105	36	21	11	4.4	2.2
6	4.4	15	15	246	85	46	90	34	29	8.5	3.6	2.0
7	4.8	17	16	130	77	55	82	33	17	7.8	2.9	1.5
8	13	18	14	80	105	45	76	43	14	11	2.9	1.5
9	12	16	15	70	67	40	117	105	14	6.8	2.9	1.5
10	7.6	16	25	57	76	38	152	313	13	5.7	2.6	1.2
11	7.0	17	37	48	72	40	152	563	12	6.8	4.4	1.2
12	7.0	17	48	43	64	45	159	236	16	6.1	3.2	1.0
13	6.4	17	144	42	54	42	117	152	20	5.2	2.6	1.1
14	7.3	17	70	37	48	35	101	111	22	4.4	3.9	1.5
15	11	17	43	35	42	30	85	90	16	4.9	1.9	2.2
16	11	19	30	32	43	30	76	78	14	4.6	2.2	1.1
17	9.6	19	27	34	53	60	67	68	20	4.9	2.0	1.0
18	7.3	20	25	35	52	80	62	56	13	4.6	10	1.1
19	7.6	18	22	30	43	110	58	54	12	3.4	6.1	.9
20	8.2	18	20	28	35	94	54	50	12	8.8	3.9	1.2
21	9.6	18	18	30	32	77	51	46	10	7.4	2.9	1.9
22	9.6	18	17	29	34	111	47	42	18	20	2.6	1.7
23	10	18	22	70	37	63	46	39	12	12	2.6	1.7
24	10	17	20	100	40	103	42	36	8.5	5.7	2.6	1.7
25	10	17	30	60	35	89	45	34	7.4	4.6	2.0	1.2
26	8.2	15	23	51	32	90	45	32	105	3.9	2.0	1.4
27	11	17	18	61	32	96	39	30	31	49	2.0	2.4
28	11	19	18	49	41	184	36	27	37	17	2.2	88
29	13	18	18	45	33	250	34	26	14	12	2.2	3.9
30	15	26	15	250	-------	340	34	25	11	6.8	7.1	2.2
31	17	-------	14	80	-------	603	-------	22	-------	4.6	4.4	-------

Note.—Discharge estimated for periods of ice effect, Nov. 29 to Dec. 8, Dec. 21–25, 1929, Jan. 6, Jan. 17 to Feb. 20, Nov. 28 to Dec. 9, Dec. 18-31, 1930, Jan. 1 to Feb. 19, Dec. 27-30, 1931, Feb. 1, 2, 20–25, Mar. 7–19, 1932.

Monthly discharge, in second-feet, of Shaver Creek near Petersburg, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929–30					
October 3–31	349	9.6	35.3	0.764	0.82
November	416	17	61.9	1.34	1.50
December	273	9.2	57.7	1.25	1.44
January	83	9.5	34.3	.742	.86
February	738	10	85.4	1.85	1.93
March	204	42	73.5	1.59	1.83
April	208	40	72.2	1.56	1.74
May	58	18	30.4	.658	.76
June	26	6.4	11.8	.255	.28
July	27	2.6	5.55	.120	.14
August	3.4	1.4	2.25	.049	.06
September	3.4	2.1	2.73	.059	.07
1930–31					
October	7.0	3.4	4.86	.105	.12
November	8.5	4.0	6.43	.139	.16
December	20	3.7	6.92	.150	.17
January	26	4.3	8.41	.182	.21
February	120	3.8	19.5	.422	.44
March	188	7.0	23.3	.504	.58
April	241	15	72.7	1.57	1.75
May	776	34	178	3.85	4.44
June	66	9.6	25.7	.556	.62
July	117	7.6	21.6	.468	.54
August	182	3.8	12.6	.273	.31
September	18	3.3	5.95	.129	.14
The year	776	3.3	32.3	.699	9.48
1931–32					
October	17	3.9	8.68	.188	.22
November	26	15	17.6	.381	.43
December	144	14	27.5	.595	.69
January	250	28	72.9	1.58	1.82
February	117	32	56.5	1.22	1.32
March	603	28	95.5	2.07	2.39
April	470	34	100	2.16	2.41
May	563	22	82.8	1.79	2.06
June	105	7.4	20.1	.435	.49
July	49	3.4	9.15	.198	.23
August	10	1.9	3.68	.080	.09
September	38	.9	2.93	.063	.07
The year	603	.9	41.4	.896	12.22

SUSQUEHANNA BASIN—STATION NO. 31

STANDING STONE CREEK NEAR HUNTINGDON

LOCATION.—Water-stage recorder at bridge on State Highway No. 545, 3¼ miles northeast of Huntingdon, Huntingdon County. Chain gage at same site and datum used prior to Feb. 4, 1930.

DRAINAGE AREA.—128 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1930, 2,220 second-feet Oct. 23 (gage height, 6.55 feet); minimum, 10 second-feet Sept. 30 (gage height, 0.78 foot).

Maximum discharge during year ending Sept. 30, 1931, 2,240 second-feet May 8 (gage height, 6.75 feet); minimum, 2.8 second-feet Feb. 11 (gage height, 0.64 foot).

Maximum discharge during year ending Sept. 30, 1932, 1,690 second-feet Apr. 1 (gage height, 5.67 feet); minimum, 5.8 second-feet Dec. 8 (gage height, 0.85 foot).

Maximum stage known, 9.38 feet (from high-water mark) June 1, 1889 (discharge not determined).

REMARKS.—Records fair except those for periods of ice effect, which are poor. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, of Standing Stone Creek near Huntingdon, 1929-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	-------	111	92	162	82	425	166	146	49	33	16	13
2	-------	94	87	181	92	364	169	130	46	37	15	13
3	632	174	82	200	88	291	159	119	44	36	15	15
4	176	237	80	166	96	257	148	105	41	31	14	15
5	71	155	79	139	190	232	134	101	40	30	14	
6	56	123	79	137	150	196	166	90	44	30	14	13
7	45	107	86	130	122	224	582	92	62	147	13	13
8	41	99	140	146	108	934	527	99	49	63	14	13
9	39	92	113	174	104	492	254	85	48	40	13	13
10	35	88	94	155	116	349	210	78	62	36	14	13
11	30	86	8	117	104	352	193	72	67	32	13	13
12	28	83	101	128	100	368	178	69	48	31	13	12
13	26	76	90	203	150	282	166	67	40	30	13	13
14	29	90	198	218	180	243	171	72	38	31	14	16
15	29	312	285	193	136	208	152	176	37	30	17	17
16	29	213	198	171	100	198	196	142	36	26	20	15
17	26	277	186	146	90	193	280	95	35	25	17	15
18	26	478	198	130	102	200	221	82	89	24	17	14
19	26	414	28°	116	124	321	203	88	85	22	17	13
20	29	406	422	110	150	221	178	109	48	22	15	13
21	29	282	312	104	183	198	183	89	42	21	14	12
22	692	229	268	100	171	174	465	77	41	21	14	11
23	1,490	196	218	96	152	164	339	69	40	20	15	13
24	344	181	183	94	180	159	268	67	38	21	15	13
25	208	164	155	92	1,090	159	232	69	40	20	15	13
26	159	146	155	90	1,300	277	203	61	38	19	14	13
27	130	141	17	88	1,130	206	176	56	54	18	13	13
28	107	146	155	96	597	181	162	61	44	18	13	11
29	95	126	196	88	-------	190	150	77	36	18	14	11
30	99	76	176	84	-------	196	139	59	33	17	14	10
31	113	-------	157	82	-------	178	-------	53	-------	17	13	-------
1930-31												
1	10	17	14	20	25	33	404	160	196	32	21	18
2	10	16	19	20	15	39	966	146	168	46	19	26
3	10	16	15	21	13	40	432	178	140	43	21	56
4	11	16	14	23	12	37	734	140	126	185	34	37
5	11	17	15	26	11	30	448	120	117	76	23	25
6	10	17	19	64	11	26	318	111	107	52	19	22
7	10	16	46	56	11	21	263	105	144	43	18	19
8	11	20	32	40	11	31	246	1,570	196	37	17	18
9	11	18	26	53	13	49	206	946	117	164	26	16
10	11	17	19	30	15	42	176	481	97	659	266	15
11	12	17	16	28	21	35	160	349	86	342	144	14
12	12	16	17	29	17	31	137	296	78	132	52	14
13	11	16	17	27	13	27	126	534	70	80	36	13
14	11	16	15	26	20	30	115	991	64	80	28	13
15	12	15	16	26	48	35	107	718	64	54	26	13
16	12	15	12	25	37	40	99	474	78	48	23	13
17	13	16	11	25	45	48	91	384	86	56	21	27
18	14	19	11	26	148	48	88	314	63	60	21	28
19	14	22	12	27	188	56	80	266	55	43	28	18
20	15	20	13	30	128	55	73	327	52	36	27	18
21	14	16	10	27	100	48	69	1,570	49	38	23	17
22	15	14	9	26	69	53	146	796	46	78	20	19
23	15	14	9	25	56	49	826	1,890	48	68	19	12
24	16	14	10	24	51	46	396	1,220	55	41	18	12
25	17	15	13	24	40	56	269	779	48	32	38	11
26	17	15	18	70	40	72	283	562	60	27	26	23
27	17	11	34	56	34	64	355	425	64	25	28	26
28	17	10	44	28	33	120	260	342	45	24	37	18
29	17	10	40	28	-------	734	229	284	37	25	47	13
30	17	10	28	30	-------	331	188	238	32	33	29	11
31	17	-------	22	23	-------	188	-------	226	-------	25	21	-------

Daily discharge, in second-feet, of Standing Stone Creek near Huntingdon, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	14	21	38	74	135	66	1,430	134	60	29	19	14
2	14	20	27	415	130	61	783	144	58	32	18	11
3	13	20	21	288	133	60	562	97	56	33	20	12
4	13	19	19	160	173	76	418	86	55	31	25	10
5	13	18	22	126	308	124	352	86	58	36	22	10
6	13	18	21	449	196	138	320	86	73	32	18	10
7	13	18	18	408	162	140	275	82	61	27	18	9.5
8	16	18	12	218	175	110	243	91	49	29	18	8.9
9	34	18	14	165	158	90	285	242	46	28	14	8.9
10	24	20	25	126	148	80	425	597	43	23	17	8.9
11	18	20	46	101	152	76	355	1,080	40	24	15	8.2
12	16	20	80	86	142	80	415	760	42	22	18	7.6
13	15	21	152	80	122	82	352	495	56	22	14	7.6
14	15	21	175	73	105	75	290	368	58	18	14	7.6
15	17	20	99	66	90	67	246	296	50	20	16	9.5
16	20	20	63	61	86	60	218	246	42	20	11	9.5
17	20	20	48	60	100	70	194	210	41	18	11	8.9
18	19	20	40	60	110	140	175	178	37	19	24	7.6
19	18	19	33	56	85	200	160	155	33	15	42	7.6
20	17	19	31	50	76	252	145	142	33	18	20	7.6
21	16	19	27	49	72	207	133	131	33	27	13	7.6
22	16	19	27	49	78	306	122	119	37	43	14	7.6
23	16	19	35	77	67	320	113	109	37	43	12	7.6
24	15	18	37	186	64	302	105	101	29	32	11	7.6
25	16	18	48	126	66	246	105	91	27	24	12	7.6
26	16	18	41	97	68	235	103	84	72	21	12	7.6
27	16	18	27	109	73	275	93	82	87	24	9.5	10
28	17	19	24	99	84	477	88	82	77	28	10	18
29	18	22	23	89	73	449	80	73	45	34	11	30
30	19	28	23	290	-------	663	76	70	32	28	11	15
31	20	-------	23	261	-------	1,260	-------	64	-------	22	20	-------

Note.—Discharge estimated for periods of ice effect, Dec. 1-8, 1929, Jan. 18 to Feb. 20, Nov. 28 to Dec. 8, Dec. 17-31, 1930, Jan. 1-28, Feb. 3-7, Dec. 8, 9, 27-31, 1931, Feb. 1, 2, 15-25, Mar. 7-18, 1932. Recorder stopped and record based on chain-gage readings for Jan. 4-9, July 23 to Aug. 1, 1932.

Monthly discharge, in second-feet, of Standing Stone Creek near Huntingdon, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929–30					
October 3–31	1,490	26	167	1.30	1.40
November	776	76	200	1.56	1.74
December	422	79	166	1.30	1.50
January	218	82	133	1.04	1.20
February	1,300	82	257	2.01	2.09
March	934	159	272	2.12	2.44
April	582	134	219	1.71	1.91
May	176	53	88.9	.695	.80
June	89	33	47.1	.368	.41
July	147	17	31.2	.244	.28
August	20	13	14.6	.114	.13
September	17	10	13.2	.103	.11
1930–31					
October	17	10	13.2	.103	.12
November	22	10	15.7	.123	.14
December	46	9	19.1	.149	.17
January	70	20	31.1	.243	.28
February	188	11	43.9	.343	.36
March	734	21	81.1	.634	.73
April	966	69	276	2.16	2.41
May	1,890	105	547	4.27	4.92
June	196	32	86.3	.674	.75
July	659	24	86.6	.677	.78
August	266	17	37.9	.296	.34
September	56	11	19.3	.151	.17
The year	1,890	9	105	.820	11.17
1931–32					
October	34	13	17.0	.133	.15
November	28	18	19.6	.153	.17
December	175	12	42.5	.332	.38
January	449	49	147	1.15	1.33
February	308	64	118	.922	.99
March	1,260	60	219	1.71	1.97
April	1,430	76	289	2.26	2.52
May	1,080	64	212	1.66	1.91
June	87	32	48.9	.382	.43
July	43	15	26.5	.207	.24
August	42	9.5	16.4	.128	.15
September	30	7.6	10.1	.079	.09
The year	1,430	7.6	97.1	.759	10.33

SUSQUEHANNA BASIN—STATION NO. 32

RAYSTOWN BRANCH OF JUNIATA RIVER AT CLIFFS

LOCATION.—Chain gage at highway bridge at Cliffs, Bedford County, 1,000 feet below mouth of Dunning Creek and 1 mile east of Bedford. Zero of gage is 1,034.91 feet above mean sea level.

DRAINAGE AREA.—362 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1931 (discontinued).

EXTREMES.—Maximum stage during period ending Sept. 30, 1930, 9.60 feet (determined from hydrograph) Oct. 22, 23; minimum, 0.79 foot Oct. 17.

Maximum stage during year ending Sept. 30, 1931, 7.40 feet (determined from hydrograph) Apr. 4; minimum, 0.76 foot Dec. 2.

REMARKS.—Gage-height record good. Owing to poor channel conditions and changes at the control section it has not been possible to obtain a rating for the determination of discharge. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1930	Feet	Second-feet	1930	Feet	Second-feet	1930	Feet	Second-feet
May 7	1.65	163	May 17	1.44	98	Sept. 28	0.88	17.5
7	1.66	169	June 4	1.18	53	28	.88	19.1
17	1.44	101	July 18	.94	32.5			

Daily mean gage height, in feet, of Raystown Branch of Juniata River at Cliffs, 1929-1931.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	-------	1.68	2.35	2.33	1.36	2.73	1.66	1.89	1.21	0.99	0.87	0.91
2	-------	1.58	1.71	2.30	1.39	2.50	1.95	1.75	1.17	1.03	.89	.89
3	-------	2.02	1.56	2.54	1.47	2.27	1.89	1.67	1.06	1.01	.85	.91
4	2.41	2.37	1.67	2.35	1.61	2.24	1.88	1.62	1.15	.93	.86	.89
5	1.85	2.12	1.52	2.18	1.82	2.20	1.59	1.54	1.14	.94	.85	.91
6	1.53	2.06	1.53	2.05	1.76	2.02	1.75	1.58	1.12	.88	.85	.91
7	1.39	1.87	1.67	2.03	1.61	2.10	2.65	1.48	1.16	1.31	.87	.89
8	1.27	1.78	1.84	1.90	1.66	3.55	2.45	1.55	1.14	1.19	.86	.91
9	1.22	1.52	1.67	2.11	1.44	2.88	2.40	1.34	1.13	1.12	.87	.91
10	1.23	1.62	1.71	1.90	1.52	2.92	2.24	1.50	1.55	1.06	.87	.91
11	1.02	1.70	1.73	1.75	1.64	2.80	2.18	1.39	1.62	1.04	.85	.91
12	1.00	1.62	1.57	1.84	1.52	2.85	2.05	1.31	1.31	1.01	.84	.90
13	.97	1.63	1.90	2.11	2.08	2.60	2.01	1.38	1.23	1.02	.85	.98
14	.92	1.59	3.35	1.98	2.27	2.70	1.95	1.35	1.19	1.02	.89	1.05
15	1.02	1.95	2.97	2.10	2.15	2.55	1.82	1.44	1.16	.98	.92	.98
16	1.14	2.05	2.72	2.00	2.05	2.47	1.88	1.39	1.15	.97	1.01	.98
17	.86	2.35	2.47	1.96	2.12	2.28	2.11	1.37	1.16	.96	1.04	1.09
18	.96	4.75	2.30	2.15	1.95	2.35	2.23	1.40	1.26	.94	1.01	1.05
19	.96	4.10	3.00	3.20	1.99	3.05	2.13	1.47	1.17	.96	1.01	.99
20	.99	3.21	3.55	2.25	2.25	2.65	1.90	1.58	1.13	.95	.92	.95
21	1.07	2.69	2.69	2.02	2.52	2.53	2.00	1.40	1.07	.90	.87	.95
22	4.27	2.57	2.59	1.79	2.54	2.34	3.00	1.32	1.08	.93	.91	.94
23	6.79	2.11	1.89	1.60	2.41	2.24	2.67	1.33	.99	.93	.95	.94
24	3.35	2.06	2.29	1.65	2.40	2.03	2.43	1.33	1.00	.91	.89	.91
25	2.57	1.84	2.24	1.54	5.05	1.96	2.38	1.33	1.16	.91	.94	.91
26	2.16	1.91	1.94	1.24	4.50	2.21	2.19	1.34	1.16	.91	.94	.90
27	1.79	1.82	1.80	1.22	3.58	2.00	1.86	1.29	1.12	.92	.95	.90
28	1.80	1.87	2.36	1.34	3.14	1.86	1.92	1.29	1.08	.85	.96	.90
29	1.68	1.81	2.50	1.43	-------	1.82	1.77	1.21	1.12	.83	.96	.88
30	1.59	2.11	2.09	1.32	-------	1.71	1.66	1.24	1.03	.85	.96	.86
31	1.70	-------	2.29	1.28	-------	1.79	-------	1.25	-------	.87	.93	-------
1930–31												
1	0.85	0.94	0.86	1.06	1.49	1.85	4.05	2.21	2.13	1.35	1.15	1.39
2	.86	.91	.78	1.06	1.43	2.43	4.55	2.11	1.97	1.51	1.18	1.39
3	.89	.96	.91	.98	1.34	2.10	3.97	2.17	1.83	1.65	2.33	1.50
4	.91	.92	.94	1.06	1.36	2.02	6.37	1.89	1.74	2.53	1.65	1.40
5	.89	1.04	.92	1.12	1.30	1.92	5.05	1.82	1.80	1.88	1.40	1.32
6	.91	1.04	1.05	1.58	1.27	1.74	3.90	1.78	1.72	1.72	1.34	1.26
7	.90	1.00	1.24	1.48	1.24	1.76	3.50	1.85	1.66	1.71	1.26	1.19
8	.89	.96	1.26	1.40	1.17	1.84	3.03	4.00	1.70	1.50	1.21	1.15
9	.90	.99	1.19	1.28	1.45	1.80	2.75	3.40	1.60	1.58	1.19	1.13
10	.91	.98	1.07	1.22	1.78	1.71	2.60	2.87	1.54	2.53	1.86	1.11
11	.90	.99	1.16	1.12	1.57	1.52	2.55	2.56	1.49	2.83	1.51	1.10
12	.91	.98	1.18	1.16	1.51	1.61	2.31	2.40	1.42	2.15	1.35	1.07
13	.89	.99	1.16	1.16	1.60	1.48	2.25	4.18	1.37	1.76	1.26	1.05
14	.89	.98	1.14	1.14	2.40	1.79	2.12	5.35	1 32	1.64	1.20	1.02
15	.91	1.00	1.15	1.03	1.96	2.18	2.00	4.15	1.50	1.55	1.17	1.05
16	.92	1.00	1.10	1.02	1.88	2.01	1.92	3.38	1.79	1.51	1.11	1.05
17	.96	1.01	.96	.97	1.88	2.08	1.86	2.90	1.56	1.73	1.09	1.50
18	.95	1.07	.93	1.03	2.07	2.11	1.84	2.66	1.41	3.18	1.09	2.25
19	.97	1.08	.94	1.10	2.40	2.18	1.72	2.49	1.34	2.18	1.14	1.57
20	.94	1.07	.94	1.47	2.54	2.17	1.66	2.40	1.28	1.91	1.27	1.40
21	.98	1.04	.81	1.37	2.40	2.11	1.57	4.37	1.32	1.83	1.48	1.95
22	.97	1.00	.88	1.27	2.24	2.13	1.90	3.57	1.31	1.80	1.60	1.51
23	1.02	.97	.86	1.15	2.02	2.24	2.45	5.65	1.54	1.68	1.38	1.41
24	1.01	.93	.87	1.10	1.94	2.13	2.43	5.16	1.58	1.67	1.28	1.34
25	.98	.94	.92	1.26	1.81	2.57	2.41	3.65	1.39	1.50	1.21	1.28
26	.92	.92	.96	1.65	1.73	2.56	2.43	3.15	1.40	1.39	1.30	2.10
27	.93	.90	1.04	1.75	1.64	2.46	2.86	2.71	1.80	1.32	2.12	1.98
28	.96	.88	1.10	1.79	1.57	2.75	2.80	2.41	1.60	1.30	1.88	1.77
29	.95	.84	1.12	1.75	-------	5.55	2.60	2.26	1.48	1.27	2.13	1.55
30	.93	.83	1.10	1.69	-------	4.25	2.38	2.22	1.39	1.24	1.69	1.47
31	.95	-------	1.13	1.56	-------	3.28	-------	2.48	-------	1.22	1.52	-------

RAYSTOWN BRANCH OF JUNIATA RIVER AT SAXTON

LOCATION.—Chain gage at covered wooden highway bridge half a mile west of Saxton, Bedford County. Zero of gage is 794.73 feet above mean sea level. Prior to Oct. 1, 1931, chain gage at datum 4.82 feet lower at steel highway bridge 0.8 mile downstream was used.

DRAINAGE AREA.—784 square miles (790 square miles at old site).

RECORDS AVAILABLE.—August, 1911, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 17,400 second-feet Apr. 17 (gage height, 10.85 feet from graph based on gage readings); minimum, 69 second-feet Sept. 6 (gage height, 0.66 foot).

Maximum discharge during year ending Sept. 30, 1930, about 21,000 second-feet Oct. 23 (gage height, 11.75 feet from graph based on gage readings); minimum, 56 second-feet Aug. 12, 13 (gage height, 0.54 foot).

Maximum discharge during year ending Sept. 30, 1931, 8,400 second-feet May 23 (gage height, 7.42 feet); minimum, 52 second-feet Oct. 17, 18 (gage height, 0.50 foot).

Maximum discharge during year ending Sept. 30, 1932, about 9,830 second-feet Apr. 1 (gage height, 8.26 feet); minimum, 53 second-feet Sept. 19, 21-24, 26, 27 (gage height, 0.96 foot).

1911-1932: Maximum discharge, about 29,000 second-feet May 12, 13, 1924 (gage height, 13.6 feet from graph based on gage readings); minimum, that of Oct. 17, 18, 1930.

(Maximum and minimum stages prior to 1932 referred to gage at old datum).

REMARKS.—Records good except those for high stages and for periods when flashboards were on dam, which are fair, and those for periods of ice effect, which are poor.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	201	141	273	[a] 260	300	3,850	851	1,910	1,070	381	99	75
2	214	152	636	[a] 280	300	2,820	669	1,780	812	362	98	75
3	201	141	470	[a] 200	280	2,540	548	4,400	606	290	98	74
4	176	163	381	[a] 200	280	3,250	738	3,700	548	228	107	74
5	176	163	324	[a] 480	280	2,960	1,550	2,820	495	201	102	72
6	176	163	290	[a]1,200	280	6,400	3,100	2,280	424	201	104	75
7	176	152	242	[a] 750	280	6,000	2,280	2,410	381	214	109	121
8	163	152	214	[a] 280	280	3,700	1,910	2,150	447	228	119	163
9	176	163	188	[a] 280	320	2,540	1,780	1,660	424	214	106	121
10	163	152	228	[a] 600	340	1,910	2,410	1,440	495	214	101	[a] 150
11	152	141	214	[a] 650	300	1,550	4,400	1,320	362	176	121	[a] 120
12	[a] 150	141	228	[a] 500	260	2,280	3,700	1,220	342	163	116	[a] 110
13	[a] 140	152	228	[a] 260	220	2,960	3,100	1,120	290	163	131	[a] 100
14	[a] 140	[b] 150	228	[a] 200	220	4,400	2,680	1,320	258	152	118	[a] 100
15	[a] 140	163	273	[a] 200	220	5,400	2,280	1,440	242	141	104	[a] 100
16	[a] 140	176	290	[a] 200	220	4,400	7,200	1,120	228	131	96	[a] 100
17	131	163	362	[a] 220	280	3,700	14,700	1,070	214	131	94	[a] 190
18	141	152	324	[a] 280	600	2,540	7,400	893	214	119	91	[a] 160
19	141	176	[a] 280	[a]1,300	1,000	2,030	5,000	935	214	112	88	[a] 120
20	141	214	[a] 240	950	[a] 950	[a]1,700	3,100	1,070	258	111	78	[a] 110
21	131	228	[a] 220	500	[a] 500	[a]1,300	2,820	935	201	106	77	[a] 100
22	152	242	[a] 200	400	[a] 360	[a]1,200	2,960	935	201	106	78	[a] 90
23	163	242	[a] 200	420	[a] 320	[a]1,200	2,680	773	[a] 340	102	88	[a] 80
24	176	242	[a] 220	600	[a] 340	1,550	2,030	669	[a] 700	109	114	81
25	176	228	[a] 220	500	[a] 480	1,320	2,030	669	[a] 750	121	101	78
26	176	214	[a] 220	440	[a]2,200	1,220	2,150	606	470	121	93	75
27	163	188	[a] 220	380	7,000	1,020	2,280	548	381	112	87	75
28	163	214	[a] 220	340	7,200	935	1,910	812	324	116	85	72
29	152	201	[a] 200	320	-------	812	2,150	1,320	447	131	81	81
30	152	201	[a] 190	320	-------	738	2,030	2,540	447	114	78	[a] 90
31	141	-------	[a] 190	320	-------	702	-------	1,660	-------	104	78	-------

[a] Estimated because of flashboards on dam.
[b] Interpolated.

Daily discharge, in second-feet, of Raystown Branch of Juniata River at Saxton, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	81	[a]1,600	480	1,120	400	2,150	520	636	[a] 190	[a] 150	68	[a] 100
2	822	[a]1,400	420	1,220	420	1,780	520	669	[a] 180	163	64	112
3	5,400	1,660	400	1,220	420	1,550	548	520	[a] 160	152	[a] 60	81
4	2,410	2,410	400	1,320	480	1,120	520	470	[a] 150	141	[a] 60	74
5	980	1,550	400	1,120	500	1,020	470	424	[a] 140	141	[a] 60	67
6	548	1,020	400	935	500	893	495	402	[a] 140	141	63	64
7	381	851	400	812	480	851	935	381	131	[a] 190	60	62
8	290	606	520	812	440	2,900	1,440	[a] 360	131	[a] 220	62	67
9	242	520	470	812	420	2,960	1,220	[a] 320	[a] 140	[a] 160	59	61
10	228	495	402	738	400	2,410	1,120	[a] 300	[a] 200	[a] 150	59	64
11	188	447	400	702	400	2,150	1,020	[a] 280	[a] 280	[a] 140	59	69
12	176	424	381	702	400	2,280	935	[a] 300	[a] 190	[a] 130	57	66
13	163	402	470	606	420	2,030	812	[a] 280	[a] 160	[a] 130	56	[a] 70
14	141	381	738	702	550	1,780	702	[a] 280	[a] 160	[a] 120	59	[a] 60
15	141	470	1,780	702	660	1,660	669	273	[a] 150	[a] 120	68	[a] 60
16	131	738	1,440	669	550	1,440	536	[a] 280	[a] 140	112	73	[a] 60
17	116	636	1,120	606	500	1,320	669	[a] 280	[a] 140	111	[a] 75	[a] 60
18	111	2,330	1,070	548	500	1,220	812	[a] 300	[a] 160	94	[a] 75	[a] 60
19	107	4,200	1,120	500	500	1,660	702	[a] 320	[a] 160	111	[a] 75	62
20	[a] 130	2,960	1,780	500	702	1,780	702	[a] 360	[a] 150	98	[a] 75	[a] 60
21	273	2,030	1,440	480	812	1,550	636	[a] 340	[a] 130	82	[a] 80	[a] 75
22	6,870	1,550	1,120	480	980	1,220	935	[a] 320	[a] 120	81	81	[a] 75
23	15,300	1,120	935	440	980	980	1,660	[a] 300	[a] 120	80	90	74
24	4,600	893	738	420	2,030	893	1,550	[a] 300	[a] 120	78	[a] 90	74
25	2,540	773	702	420	5,200	812	1,320	[a] 280	[a] 140	73	[a] 90	64
26	1,440	702	738	400	5,200	1,020	1,120	[a] 260	[a] 140	73	[a] 75	66
27	1,320	575	738	400	3,700	1,020	851	[a] 240	[a] 130	73	74	63
28	[a]1,300	520	812	400	2,680	738	738	[a] 220	[a] 130	70	78	61
29	[a]1,400	500	1,320	400	-------	669	636	[a] 220	[a] 140	68	78	63
30	1,660	480	1,660	400	-------	606	606	[a] 220	[a] 150	66	75	60
31	1,660	-------	1,220	400	-------	575	-------	[a] 200	-------	69	[a] 90	-------
1930-31												
1	[a] 58	64	62	110	180	214	2,560	893	935	201	188	214
2	[a] 57	[a] 64	59	100	155	379	5,400	702	606	258	176	188
3	[a] 57	[a] 64	55	98	140	643	3,550	669	520	245	163	188
4	57	[a] 64	56	97	130	447	4,700	636	447	1,040	306	176
5	58	[a] 66	60	110	125	381	5,700	495	381	800	273	176
6	62	[a] 65	96	150	128	324	3,400	447	362	447	214	152
7	64	[a] 65	130	300	130	290	2,680	402	362	669	176	131
8	63	[a] 65	150	260	150	290	2,280	1,020	424	447	163	121
9	61	[a] 65	130	220	160	306	1,550	2,820	342	506	163	118
10	59	[a] 65	119	180	150	366	1,220	1,910	290	5,200	188	114
11	55	[a] 66	108	170	140	258	1,070	1,550	258	4,870	258	109
12	[a] 56	[a] 67	104	155	140	214	893	1,320	242	2,040	258	101
13	[a] 58	[a] 68	109	145	155	201	773	1,530	228	1,020	188	99
14	60	[a] 68	111	135	200	214	669	4,680	201	669	163	101
15	58	69	104	130	400	290	548	4,000	273	606	152	109
16	57	[a] 70	82	120	340	447	495	2,820	362	470	131	[a] 120
17	53	[a] 71	84	115	320	470	424	4,030	324	691	121	[a] 250
18	53	[a] 71	82	112	342	470	402	1,660	242	1,060	119	[a] 240
19	[a] 54	[a] 72	79	115	447	495	381	1,220	214	1,560	121	[a] 220
20	[a] 56	[a] 72	75	148	773	470	342	1,070	188	773	141	[a] 180
21	[a] 58	[a] 70	70	220	702	495	324	3,180	163	1,020	152	[a] 200
22	[a] 62	[a] 68	68	180	575	470	341	3,040	152	812	176	[a] 230
23	[a] 64	[a] 66	67	140	447	447	1,940	6,290	396	669	228	[a] 190
24	67	[a] 64	66	130	362	520	2,030	5,200	250	520	201	[a] 180
25	61	[a] 62	65	135	306	575	1,440	3,550	242	424	163	[a] 160
26	[a] 61	60	75	160	273	935	1,320	2,680	258	362	152	[a] 500
27	[a] 64	58	100	190	242	812	1,780	1,910	324	273	201	[a] 450
28	[a] 64	56	140	324	214	702	1,660	1,440	273	242	297	[a] 400
29	[a] 64	56	140	290	-------	4,760	1,440	1,070	258	228	424	[a] 300
30	[a] 64	[a] 58	133	324	-------	4,720	1,120	935	228	214	362	[a] 230
31	[a] 64	-------	122	214	------	2,540	-------	893	-------	201	273	-------

[a] Estimated because of flashboards on dam.

Daily discharge, in second-feet, of Raystown Branch of Juniata River at Saxton, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	185	127	146	332	1,030	358	9,640	430	280	161	80	67
2	185	120	193	770	900	332	6,400	687	269	146	82	73
3	158	114	229	1,890	920	303	4,120	607	501	146	103	117
4	154	108	169	1,430	1,030	298	3,080	479	370	130	92	95
5	139	108	154	1,080	5,720	396	2,270	450	239	136	82	124
6	139	103	139	1,030	3,670	647	1,770	479	224	133	78	103
7	139	98	136	3,080	2,140	647	1,430	486	210	139	78	85
8	136	98	130	2,270	1,770	523	1,220	450	202	139	78	75
9	133	98	139	1,770	1,650	440	1,120	472	193	133	73	62
10	120	98	189	1,380	1,220	360	1,650	1,170	176	127	71	62
11	127	98	269	985	1,170	320	2,140	3,520	176	124	73	62
12	127	98	940	812	1,080	310	2,140	4,590	193	120	67	62
13	127	103	3,220	728	940	320	2,010	5,070	210	111	67	62
14	120	103	3,520	687	898	310	1,890	4,120	219	98	64	62
15	120	98	2,010	607	687	290	1,540	2,940	239	98	64	64
16	120	98	1,170	530	607	290	1,380	2,140	239	103	67	62
17	130	98	855	523	607	370	1,170	1,650	219	100	62	58
18	140	103	647	472	647	700	1,030	1,270	244	90	80	56
19	150	98	568	443	647	1,120	940	1,030	185	87	105	53
20	180	103	472	423	515	1,270	812	898	219	90	103	56
21	165	108	409	389	472	1,430	770	770	202	127	71	55
22	154	103	376	364	443	1,380	687	687	202	117	73	55
23	146	98	345	383	430	2,940	607	607	180	103	71	53
24	139	98	383	568	389	2,800	568	530	158	132	73	53
25	130	95	464	1,220	351	2,270	530	486	158	114	71	56
26	120	98	568	1,030	383	1,890	530	457	146	98	67	53
27	120	92	423	940	376	1,770	561	403	416	111	67	53
28	114	92	396	940	364	1,890	457	389	286	92	67	60
29	120	103	370	770	364	2,400	409	351	210	114	67	60
30	124	103	358	898	-------	4,120	389	332	185	103	78	56
31	127	-------	345	1,770	-------	8,340	-------	298	-------	111	67	-------

Note.—Discharge estimated for periods of ice effect, Nov. 29 to Dec. 8, Dec. 11, 1929, Jan. 19 to Feb. 19, Dec. 1-11, 17-31, 1930, Jan. 1-27, Feb. 1-17, Dec. 8, 9, Feb. 2, 3, Mar. 9-19, 1932.

Monthly discharge, in second-feet, of Raystown Branch of Juniata River at Saxton, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	214	131	161	0.204	0.24
November	242	141	179	.227	.25
December	636	188	265	.335	.39
January	1,300	200	446	.565	.65
February	7,200	220	915	1.16	1.21
March	6,400	702	2,550	3.23	3.72
April	14,700	548	3,080	3.90	4.35
May	4,400	548	1,530	1.94	2.24
June	1,070	201	420	.532	.59
July	381	102	167	.211	.24
August	131	77	98.1	.124	.14
September	190	72	101	.128	.14
The year	14,700	72	824	1.04	14.16
1929-30					
October	15,300	81	1,650	2.09	2.26
November	4,200	381	1,140	1.44	1.61
December	1,780	381	839	1.06	1.22
January	1,320	400	677	.857	.99
February	5,200	400	1,120	1.42	1.48
March	2,960	575	1,450	1.84	2.12
April	1,660	470	850	1.08	1.20
May	669	200	333	.422	.49
June	280	120	152	.192	.21
July	220	66	116	.147	.17
August	90	56	70.6	.089	.10
September	112	60	68.5	.087	.10
The year	15,300	56	694	.878	11.95
1930-31					
October	67	53	59.6	.075	.09
November	72	56	65.3	.083	.09
December	150	55	93.6	.118	.14
January	324	97	170	.215	.25
February	773	125	280	.354	.37
March	4,760	201	777	.984	1.13
April	5,700	324	1,750	2.22	2.48
May	6,290	402	2,000	2.53	2.92
June	935	152	325	.411	.46
July	5,200	201	921	1.17	1.35
August	424	119	203	.257	.30
September	500	99	198	.251	.28
The year	6,290	53	572	.724	9.86
1931-32					
October	185	114	138	.176	.20
November	127	92	102	.130	.14
December	3,520	130	637	.812	.94
January	3,080	332	984	1.26	1.45
February	5,720	351	1,080	1.38	1.49
March	8,340	290	1,320	1.68	1.94
April	9,640	389	1,770	2.26	2.52
May	5,070	298	1,230	1.57	1.81
June	501	146	232	.296	.33
July	161	87	117	.149	.17
August	105	62	75.5	.096	.11
September	124	53	67.1	.086	.10
The year	9,640	53	645	.823	11.20

DUNNING CREEK AT YOUNT

LOCATION.—Chain gage at highway bridge at Yount, Bedford County, 3 miles upstream from mouth.

DRAINAGE AREA.—191 square miles.

RECORDS AVAILABLE.—November, 1929, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1930, about 2,700 second-feet Feb. 25 (gage height, 7.20 feet); minimum, 4.9 second-feet July 28 (gage height, 0.46 foot).

Maximum discharge during year ending Sept. 30, 1931 (estimated), 3,240 second-feet Apr. 4 (gage height, 8.1 feet from graph based on gage readings); minimum, 6.2 second-feet at times during October (gage height, 0.50 foot).

Maximum discharge during year ending Sept. 30, 1932, about 2,820 second-feet Apr. 1 (gage height, 7.40 feet); minimum, 6.2 second-feet Aug. 6, 26, Sept. 19, 21 (gage height, 0.50 foot).

REMARKS.—Records good except those between 1,200 and 2,000 second-feet, which are fair, and those for high stages, and for periods of ice effect, which are poor. Slight regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1929-1932.

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30											
1	-------	95	234	59	490	126	140	44	12	6.2	8.2
2	-------	86	319	55	400	119	130	40	9.6	6.2	8.2
3	-------	81	372	52	319	138	122	33	8.2	12	9.6
4	-------	73	332	78	282	136	108	27	7.6	11	8.9
5	-------	70	294	88	246	134	99	27	6.2	10	10
6	-------	85	246	78	119	145	83	25	8.2	9.6	8.9
7	-------	104	222	67	142	329	78	22	122	8.2	10
8	-------	164	186	61	628	345	76	21	140	7.6	8.9
9	-------	147	210	59	556	294	68	24	45	6.2	12
10	-------	138	222	58	490	282	61	92	36	6.2	10
11	-------	117	149	59	429	258	58	88	31	6.2	8.9
12	-------	128	128	62	459	234	52	80	27	6.2	11
13	-------	106	147	78	429	198	49	61	22	7.6	14
14	-------	764	258	142	294	210	58	55	18	14	14
15	-------	628	270	104	386	186	65	49	24	15	16
16	-------	429	270	78	386	175	64	44	21	18	18
17	-------	358	234	75	345	306	58	39	18	22	16
18	-------	345	222	95	319	270	52	34	19	24	14
19	-------	556	138	132	522	258	80	27	16	20	12
20	-------	429	122	258	490	234	78	22	12	16	9.6
21	-------	358	108	358	372	234	80	18	9.6	13	9.6
22	-------	294	99	358	294	294	68	14	16	16	9.6
23	-------	246	95	306	128	282	55	11	12	18	10
24	-------	222	92	345	134	358	54	12	9.6	12	10
25	-------	198	85	2,180	198	345	49	16	6.9	12	11
26	149	164	80	2,120	252	332	44	20	5.9	12	10
27	149	164	76	1,070	121	319	48	24	5.6	11	9.6
28	151	270	75	628	140	234	52	20	4.9	12	9.6
29	109	234	83	-------	142	175	47	16	6.9	10	9.6
30	106	198	75	-------	126	153	48	12	8.9	9.6	9.6
31	-------	186	65	-------	130	-------	44	-------	7.6	7.6	-------

Daily discharge, in second-feet, of Dunning Creek at Yount, 1929-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	8.2	11	13	16	65	140	1,000	222	186	68	30	51
2	11	9.6	12	15	52	234	1,220	186	147	97	29	47
3	9.6	9.6	11	14	45	175	879	210	117	164	364	64
4	9.6	11	10	15	40	164	2,560	151	104	345	136	48
5	6.9	12	14	20	35	128	1,520	126	104	151	75	36
6	6.9	14	19	60	32	117	879	119	93	145	59	28
7	7.6	16	35	43	30	104	628	122	86	117	61	25
8	6.9	16	42	32	30	124	459	490	90	88	39	23
9	6.2	18	33	25	40	115	358	400	75	73	38	21
10	6.9	18	28	21	55	92	332	358	68	324	145	19
11	6.9	20	28	23	45	80	319	282	61	400	62	17
12	8.2	17	30	20	42	78	270	246	54	186	40	17
13	6.9	15	29	17	55	72	222	834	48	132	35	15
14	6.9	10	25	15	110	132	186	1,070	65	111	29	13
15	6.9	12	23	14	95	175	164	748	73	90	25	15
16	7.6	13	23	13	110	164	145	522	106	75	22	38
17	8.2	15	22	13	115	164	124	372	73	175	21	54
18	7.6	15	19	15	198	149	115	294	54	153	20	294
19	9.6	19	19	30	332	164	100	246	45	90	25	88
20	8.2	17	18	60	319	175	90	210	43	72	36	56
21	8.9	12	17	45	294	186	80	824	40	113	51	198
22	10	12	16	35	222	186	119	386	39	99	55	88
23	11	12	15	27	175	210	459	1,340	92	95	40	70
24	12	12	15	25	149	198	294	972	106	80	30	70
25	9.6	13	14	32	121	294	270	707	65	58	23	51
26	14	14	16	50	109	294	400	522	61	44	25	294
27	12	13	23	90	85	270	522	358	186	43	198	186
28	14	10	25	117	76	400	459	270	109	39	138	132
29	12	9	23	95	-------	2,110	372	222	88	35	222	95
30	9.6	9	20	117	-------	1,120	282	258	75	35	95	75
31	9.6	-------	18	80	-------	591	-------	282	-------	31	67	-------
1931–32												
1	65	35	99	222	320	83	2,580	186	48	17	10	10
2	55	33	67	748	310	75	1,270	126	68	19	8.9	45
3	51	31	58	591	319	73	925	95	70	19	12	28
4	44	30	55	429	972	108	667	90	48	22	12	12
5	38	28	72	345	1,120	145	490	97	43	20	8.9	12
6	38	25	62	879	748	126	400	106	38	21	7.6	11
7	36	25	55	1,170	522	128	319	99	38	19	8.9	10
8	35	25	56	790	556	105	270	93	34	23	13	8.9
9	54	23	68	556	386	90	358	186	30	21	12	8.9
10	42	23	153	400	386	78	490	377	30	19	11	8.9
11	33	24	358	306	358	73	490	1,030	30	17	12	8.2
12	33	23	790	258	306	72	556	925	40	13	11	8.9
13	30	23	1,800	246	246	70	556	707	52	12	10	8.2
14	33	25	1,370	210	210	67	459	522	56	11	10	9.6
15	43	28	707	175	198	65	386	400	44	12	9.6	9.6
16	48	25	459	164	175	100	332	319	40	17	8.9	8.9
17	65	25	332	151	210	170	294	258	45	16	8.9	8.9
18	92	25	258	153	198	319	258	210	52	15	15	7.6
19	75	25	210	136	153	306	222	175	40	11	19	7.6
20	65	24	175	124	136	459	186	153	34	10	15	7.6
21	59	23	147	117	117	429	175	138	30	12	13	7.6
22	51	20	145	113	130	667	151	119	29	17	11	8.9
23	45	21	175	258	108	790	134	102	24	15	10	8.9
24	43	20	151	556	88	707	122	92	23	12	8.9	8.9
25	38	21	270	429	109	591	124	86	20	10	8.9	8.2
26	35	19	222	358	106	522	124	80	21	9.6	7.6	8.9
27	35	23	198	386	99	556	104	75	29	13	7.6	12
28	35	28	186	282	102	925	92	68	33	12	8.2	13
29	35	30	175	246	92	925	83	65	25	12	8.9	10
30	35	56	153	556	-------	1,370	81	58	21	15	15	9.6
31	36	-------	132	386	-------	2,230	-------	52	-------	12	11	-------

Note.—Discharge estimated for periods of ice effect, Dec. 1-4, 20-26, 1929, Jan. 5, 6, 12, Jan. 20 to Feb. 19, Nov. 28 to Dec. 5, Dec. 20-31, 1930, Jan. 1-27, Feb. 1-17, 1931, Feb. 1,2, Mar. 8-17, 1932. Discharge interpolated for Sept. 23, 24, 1930.

Monthly discharge, in second-feet, of Dunning Creek at Yount, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929–30					
November 26-30	151	106	133	0.696	0.13
December	764	70	242	1.27	1.46
January	372	65	178	.932	1.07
February	2,180	55	325	1.70	1.77
March	628	119	316	1.65	1.90
April	358	119	237	1.24	1.38
May	140	44	70.3	.368	.42
June	92	11	33.9	.177	.20
July	140	4.9	22.5	.118	.14
August	24	6.2	11.8	.062	.07
September	18	8.2	10.9	.057	.06
1930–31					
October	14	6.2	9.02	.047	.05
November	20	9	13.5	.071	.08
December	42	10	21.1	.110	.13
January	117	13	38.5	.202	.23
February	332	30	110	.576	.60
March	2,110	72	278	1.46	1.68
April	2,560	80	494	2.59	2.89
May	1,340	119	431	2.26	2.61
June	186	39	85.1	.446	.50
July	400	31	120	.628	.72
August	364	20	72.1	.377	.43
September	294	13	74.3	.389	.43
The year	2,560	6.2	146	.764	10.35
1931–32					
October	92	30	45.9	.240	.28
November	56	19	26.2	.137	.15
December	1,800	55	295	1.54	1.78
January	1,170	113	379	1.98	2.28
February	1,120	88	303	1.59	1.72
March	2,220	65	401	2.10	2.42
April	2,580	81	423	2.21	2.47
May	1,030	52	229	1.20	1.38
June	70	20	37.8	.198	.22
July	23	9.6	13.3	.080	.09
August	19	7.6	10.8	.057	.07
September	45	7.6	11.2	.059	.07
The year	2,580	7.6	181	.948	12.93

BRUSH CREEK AT GAPSVILLE

LOCATION.—Water-stage recorder at highway bridge, three-fourths mile northwest of Gapsville, Bedford County, and 5½ miles above confluence with Shaffer Creek. Chain gage at same site and datum used prior to Feb. 7, 1930.

DRAINAGE AREA.—36.8 square miles.

RECORDS AVAILABLE.—November, 1929, to September, 1932.

EXTREMES.—Maximum gage height during period ending Sept. 30, 1930, 4.0 feet Mar. 8 (discharge not determined); minimum discharge, 0.3 second-foot Sept. 2, 3 (gage height, 0.20 foot).

Maximum gage height during year ending Sept. 30, 1931, 4.44 feet May 23, (discharge not determined); minimum discharge, 0.6 second-foot Oct. 1, 2 (gage height, 0.25 foot).

Maximum discharge during year ending Sept. 30, 1932, about 810 second-feet Mar. 31 (gage height, 3.84 feet); minimum, 0.2 second-foot Aug. 28, Sept. 12, 20-23.

REMARKS.—Records prior to Oct. 1, 1931, are fair except those above 82 second-feet and those for periods of ice effect, which are poor. Records Oct. 1, 1931, to Mar. 30, 1932, are poor. Subsequent records are good except those above 300 second-feet, which are fair. Discharge not computed for period, July 9 to Sept. 30, 1931, owing to dredging operations which affected the stage-discharge relation. Regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1929-1932.

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30											
1	-------	27	78	19	81	35	43	8.8	3.3	1.2	1.6
2	-------	23	82	22	78	37	38	8.0	3.1	.6	.4
3	-------	19	78	24	68	34	35	8.0	3.6	.6	.9
4	-------	18	65	30	59	32	32	5.9	2.1	.6	.6
5	-------	27	54	76	50	27	30	6.2	1.9	1.5	.5
6	-------	25	51	61	42	38	28	5.9	2.5	1.2	.8
7	-------	23	51	48	[a] 88	[a] 92	29	6.9	5.8	.9	.5
8	-------	28	52	43	[a] 340	81	29	5.9	2.8	.9	.8
9	-------	30	46	36	[a] 200	76	27	7.6	3.3	.9	1.0
10	-------	14	40	32	[a] 150	69	24	13	2.4	.8	.9
11	-------	16	26	30	[a] 155	64	23	9.3	1.7	.8	.7
12	-------	21	38	26	[a] 155	61	23	6.0	1.9	.7	.6
13	-------	21	31	29	[a] 128	52	21	5.7	2.2	.6	.6
14	-------	27	33	32	[a] 110	49	20	5.1	2.7	.6	1.1
15	-------	36	35	29	[a] 95	43	30	5.1	3.7	.8	2.0
16	-------	33	28	33	[a] 86	38	28	3.9	1.6	1.0	1.1
17	-------	32	26	28	79	40	23	5.1	2.5	1.2	2.6
18	-------	44	21	29	77	36	23	7.3	1.5	2.6	.6
19	-------	52	22	26	[a] 86	37	24	6.7	1.8	1.3	1.6
20	-------	52	23	28	64	30	23	4.4	.9	.4	.6
21	-------	48	26	29	59	42	20	4.9	.9	1.2	.6
22	-------	36	30	27	51	79	17	3.4	1.6	1.1	1.6
23	-------	30	25	30	45	70	15	4.7	2.1	.4	.6
24	73	29	22	31	43	76	16	3.1	1.4	.4	.4
25	72	29	21	[a] 80	46	70	15	5.9	1.0	1.8	1.3
26	56	27	18	[a] 83	74	61	13	5.2	1.0	.4	1.2
27	49	27	18	[a] 98	55	55	13	4.9	1.0	2.6	1.2
28	50	60	22	[a] 89	46	48	12	3.8	1.5	.4	.6
29	42	[a] 86	19	-------	44	43	12	2.8	1.8	1.5	1.1
30	36	77	13	-------	41	41	11	2.8	.8	.4	.9
31	-------	[a] 83	17	-------	38	-------	10	-------	1.8	.4	-------

[a] Estimated because rating curve was not defined.

Daily discharge, in second-feet, of Brush Creek at Gapsville, 1929-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	0.6	1.4	1.1	3.0	4.5	30	a208	64	52	4.4	-------	-------
2	.6	1.5	1.4	2.5	3.3	48	a268	54	44	16	-------	-------
3	1.0	2.1	1.2	2.0	3.8	30	a188	54	35	8.0	-------	-------
4	.9	1.2	1.1	1.8	3.7	22	a172	42	30	18	-------	-------
5	.9	2.7	1.5	1.8	3.5	17	a140	35	32	7.6	-------	-------
6	1.0	2.5	3.0	16	3.8	13	a128	31	29	9.4	-------	-------
7	.9	1.9	14	17	3.5	10	a117	30	26	15	-------	-------
8	.9	1.7	6.3	9.5	3.4	17	a101	a143	30	8.8	-------	-------
9	.9	1.2	8.5	7.0	4.5	18	82	a137	23	-------	-------	-------
10	.9	2.8	1.9	5.5	12	15	68	a129	19	-------	-------	-------
11	1.0	.9	3.2	5.0	8.5	12	59	a108	16	-------	-------	-------
12	1.0	2.1	2.4	5.5	7.5	10	49	a101	12	-------	-------	-------
13	1.1	1.4	2.7	4.5	7.0	9.5	43	a137	11	-------	-------	-------
14	1.0	2.7	2.8	4.3	16	11	38	a205	9.7	-------	-------	-------
15	1.1	2.1	1.8	4.0	11	16	34	a220	10	-------	-------	-------
16	2.6	.9	1.5	3.7	9.5	19	30	a185	11	-------	-------	-------
17	2.7	2.9	1.4	3.5	9.0	23	28	a146	11	-------	-------	-------
18	1.9	1.8	1.3	3.5	10	25	25	a118	8.8	-------	-------	-------
19	1.3	1.1	1.3	5.0	24	26	22	a 93	7.1	-------	-------	-------
20	1.4	2.3	1.2	18	30	23	19	79	5.9	-------	-------	-------
21	1.5	1.5	1.2	10	19	26	16	a152	5.7	-------	-------	-------
22	1.4	1.6	1.1	7.0	16	26	a 40	a150	5.7	-------	-------	-------
23	1.4	1.5	1.1	6.0	14	30	a152	a440	6.2	-------	-------	-------
24	1.5	2.8	1.0	5.5	11	30	a110	a350	8.0	-------	-------	-------
25	2.0	1.2	1.0	5.5	8.5	36	a104	a250	6.2	-------	-------	-------
26	1.5	2.1	1.5	14	6.9	34	a125	a178	5.4	-------	-------	-------
27	1.5	1.4	13	14	6.0	30	a115	a125	8.4	-------	-------	-------
28	1.5	1.1	14	8.0	5.5	a 93	a104	a100	5.4	-------	-------	-------
29	1.9	1.0	6	7.0	-------	a362	a 98	77	4.9	-------	-------	-------
30	2.9	.8	4	6.5	-------	a233	78	66	4.6	-------	-------	-------
31	2.0	-------	3.5	6.8	-------	a155	-------	66	-------	-------	-------	-------
1931-32												
1	3.1	3.6	6.6	11	27	13	616	44	16	6.1	1.4	0.4
2	1.7	3.7	4.0	41	25	12	357	38	15	6.6	1.9	1.2
3	1.8	3.8	2.9	34	25	11	225	32	19	6.5	3.0	.7
4	3.1	3.3	2.5	23	69	18	146	32	14	7.0	3.5	.3
5	2.0	2.6	4.1	19	91	27	116	32	13	6.3	2.4	.4
6	2.3	3.3	1.9	29	67	31	94	33	14	5.6	2.1	.7
7	2.7	2.7	4.4	38	54	40	77	31	13	6.1	1.1	.7
8	2.3	1.8	2.8	32	52	31	67	29	11	8.0	.9	.4
9	1.8	2.9	2.6	29	40	25	75	37	10	6.3	1.0	.4
10	4.0	3.9	6.6	25	34	22	116	68	8.7	4.5	.7	.6
11	2.5	2.4	14	22	31	19	127	199	8.0	4.0	1.7	.4
12	2.3	3.6	20	18	29	17	143	272	11	4.0	.8	.2
13	2.0	2.5	15	19	25	16	127	471	13	3.7	1.2	.4
14	1.7	1.7	19	17	22	16	106	344	11	2.3	.7	.3
15	3.1	2.6	15	16	20	15	88	212	10	4.1	.6	.3
16	2.0	3.8	12	15	17	15	74	142	10	3.8	1.3	.4
17	3.3	2.6	9.9	13	19	38	64	110	9.7	2.7	.3	.4
18	2.7	2.0	8.6	14	20	50	57	86	12	4.1	1.7	.4
19	2.3	2.2	8.2	13	17	49	49	72	9.8	3.4	4.0	.3
20	1.1	2.5	7.5	12	15	54	43	59	9.4	2.4	2.9	.2
21	1.1	1.7	6.2	11	14	52	39	52	8.6	5.3	.5	.2
22	1.7	3.1	6.2	11	15	80	36	45	10	7.7	.5	.2
23	1.7	3.6	6.2	12	14	97	33	37	6.9	3.5	1.5	.2
24	2.9	2.0	6.7	16	12	89	31	33	6.6	2.9	1.1	.3
25	1.4	2.8	7.3	15	11	83	31	30	6.2	2.5	.3	.3
26	3.1	2.4	6.4	12	11	77	29	26	9.6	1.1	1.2	.3
27	4.0	3.4	4.4	15	11	71	27	25	20	2.8	.3	.3
28	4.0	2.3	5.0	14	15	108	24	25	12	3.8	.2	.4
29	1.7	2.8	4.5	15	15	112	21	21	9.7	3.9	.7	.4
30	5.6	5.4	4.4	38	-------	214	19	20	6.8	2.8	.5	.7
31	2.3	-------	.5	30	-------	662	-------	17	-------	1.6	2.3	-------

[a] Estimated because rating curve was not defined.

Note.—Discharge estimated for periods of ice effect, Nov. 30 to Dec. 5, Dec. 21-27, 1929, Jan. 18, Jan. 24 to Feb. 4, Nov. 28 to Dec. 6, Dec. 16-31, 1930, Jan. 1 to Feb. 18, Mar. 11-13, Dec. 29-31, 1931, Jan. 30, Feb. 1, 24, 25, Mar. 8-17, 1930. Records based on chain-gage readings for Oct. 1-30, 1931, Aug. 7-9, 1932.

Monthly discharge, in second-feet, of Brush Creek at Gapsville, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
November 24-30	73	36	54.0	1.47	0.38
December	86	14	35.5	.965	1.11
January	82	17	36.0	.978	1.13
February	98	19	41.2	1.12	1.17
March	340	38	88.2	2.40	2.77
April	92	27	51.9	1.41	1.57
May	43	10	22.8	.620	.71
June	13	2.8	5.88	.160	.18
July	5.8	.8	2.14	.058	.07
August	2.6	.4	.96	.026	.03
September	2.6	.4	.97	.026	.03
1930-31					
October	2.9	.6	1.38	.038	.04
November	2.9	.8	1.74	.047	.05
December	14	1.0	3.27	.089	.10
January	18	1.8	6.88	.187	.22
February	30	3.3	9.48	.258	.27
March	362	9.5	46.8	1.27	1.46
April	268	16	92.0	2.50	2.79
May	440	30	131	3.56	4.10
June	52	4.6	16.1	.438	.49
July 1-8	18	4.4	10.9	.296	.09
1931-32					
October	5.6	1.1	2.49	.068	.08
November	5.4	1.7	2.87	.078	.09
December	20	1.9	7.40	.201	.23
January	41	11	20.3	.552	.64
February	91	11	28.2	.766	.83
March	662	11	69.8	1.90	2.19
April	616	19	102	2.77	3.09
May	471	17	86.3	2.35	2.71
June	20	6.2	11.1	.302	.34
July	8.0	1.1	4.37	.119	.14
August	4.0	.2	1.36	.037	.04
September	1.2	.2	.41	.011	.01
The year	662	.2	28.0	.761	10.39

GREAT TROUGH CREEK NEAR MARKLESBURG

LOCATION.—Water-stage recorder at highway bridge half a mile above mouth and 3 miles southeast of Marklesburg, Huntingdon County. Zero of gage is 714.48 feet above mean sea level.

DRAINAGE AREA.—84.7 square miles.

RECORDS AVAILABLE.—January, 1930, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1930, about 916 second-feet Feb. 25 (gage height, 4.14 feet); minimum, 1.1 second-feet Sept. 30 (gage height, 0.63 foot).

Maximum discharge during year ending Sept. 30, 1932, about 1,060 second-feet May 23 (gage height, 4.80 feet); minimum, 0.8 second-foot Oct. 3 (gage height, 0.61 foot).

Maximum discharge during year ending Sept. 30, 1932, about 1,060 second-feet Apr. 1 (gage height, 4.52 feet); minimum, 0.6 second-foot Sept. 22, 23 (gage height, 0.59 foot).

REMARKS.—Records excellent except those above 500 second-feet, which are fair, and those estimated, which are poor. Some regulation at low stages from power operations upstream. Water-stage recorder, well, shelter, and concrete weir furnished by United States Engineer Office, Baltimore, Md.

Daily discharge, in second-feet, 1930-1932.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930									
1	------	53	341	78	104	31	8.8	3.4	1.7
2	------	56	286	78	91	29	9.6	3.1	1.7
3	------	52	216	75	86	27	9.6	2.8	1.9
4	------	59	170	75	78	25	8.6	2.8	1.9
5	------	67	140	65	70	23	7.9	2.3	1.7
6	------	59	126	68	65	25	8.7	2.9	1.6
7	------	48	122	208	61	26	21	3.3	1.9
8	------	48	384	156	62	23	17	2.3	2.3
9	------	45	378	126	59	24	10	2.6	2.0
10	------	49	286	111	54	29	8.4	2.3	1.7
11	------	42	294	102	49	32	8.2	2.3	1.7
12	------	41	324	97	46	26	7.5	2.0	2.2
13	------	64	253	93	45	21	8.5	2.0	2.0
14	------	89	224	89	48	19	9.8	2.8	1.7
15	------	78	177	86	59	17	9.8	5.6	1.6
16	------	58	156	95	55	16	8.2	4.0	1.4
17	70	54	143	126	48	17	6.8	4.3	2.4
18	64	57	152	113	47	24	6.2	4.9	4.0
19	48	65	232	111	59	22	5.6	4.9	3.0
20	56	95	174	104	67	17	5.4	4.5	2.3
21	54	115	140	111	59	14	4.7	5.2	2.5
22	53	99	120	250	56	13	4.7	4.1	2.3
23	53	95	108	249	52	12	6.0	3.8	1.9
24	54	103	102	216	51	12	5.0	3.1	1.7
25	53	772	119	180	51	12	5.4	2.6	2.0
26	52	643	166	149	45	12	4.1	2.8	3.3
27	51	538	115	126	41	11	4.3	2.7	2.8
28	55	425	102	113	40	11	3.6	3.3	2.0
29	54	------	97	104	41	10	3.8	2.8	1.4
30	53	------	93	99	36	9.6	3.8	2.5	1.2
31	52	------	86	------	34	------	4.1	2.3	------

Daily discharge, in second-feet, of Great Trough Creek near Marklesburg, 1930-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	0.9	2.5	4.2	1.7	8.8	19	419	104	115	26	24	16
2	.9	2.5	2.5	1.7	7.5	24	635	95	93	196	21	15
3	.8	2.3	1.9	1.8	5.0	30	416	113	78	113	27	15
4	1.2	2.3	2.2	2.2	6.7	24	496	88	68	198	30	16
5	1.3	2.3	4.2	3.5	4.5	18	391	76	64	93	22	14
6	1.6	2.3	4.6	13	5.8	17	286	70	58	116	18	11
7	1.9	2.2	8.3	17	6.0	13	236	68	95	159	15	10
8	1.4	2.2	15	10	5.7	17	184	382	105	81	14	8.0
9	2.1	2.6	11	8.0	5.6	31	140	349	64	62	18	7.5
10	2.2	2.5	9.1	6.5	6.8	21	113	261	51	273	48	7.3
11	2.3	2.3	7.1	5.5	6.8	17	97	204	45	487	29	7.4
12	2.0	2.3	7.4	4.0	8.8	16	84	166	39	242	25	6.9
13	1.6	2.3	6.4	3.5	7.7	13	75	208	36	133	20	6.6
14	1.3	2.3	6.2	3.1	32	18	67	282	31	93	17	6.9
15	1.2	2.2	3.6	3.0	34	27	61	290	66	73	14	10
16	1.3	2.3	2.8	3.0	26	33	56	236	116	72	12	11
17	1.9	2.6	1.9	3.1	22	38	51	200	62	185	11	12
18	2.0	4.3	2.0	3.6	34	42	48	163	45	354	9.5	73
19	1.9	3.6	1.8	4.5	54	48	44	137	36	148	12	29
20	1.9	3.3	1.7	5.6	64	51	41	143	32	92	12	17
21	1.9	3.1	2.0	6.2	62	52	38	315	28	106	14	25
22	1.7	3.1	1.9	6.0	47	54	97	307	25	91	14	20
23	1.7	2.8	1.8	4.3	34	51	450	1,060	33	70	16	12
24	1.9	2.8	1.7	3.8	29	52	294	685	90	59	13	17
25	2.3	2.6	1.5	4.2	24	62	236	483	51	47	12	12
26	2.5	2.6	1.5	7.7	23	72	244	366	40	39	17	23
27	2.3	2.2	2.2	16	20	59	236	261	82	35	69	31
28	2.6	2.0	2.8	24	17	101	177	192	48	30	33	17
29	2.5	1.8	2.4	20	------	555	149	146	35	29	61	16
30	2.3	1.6	2.0	13	------	341	120	123	30	40	37	11
31	2.3	------	1.8	12	------	196	------	164	------	29	23	------
1931-32												
1	9.5	6.3	20	56	115	41	937	71	38	36	7.1	3.0
2	8.9	5.6	13	283	105	37	643	88	49	35	6.2	6.3
3	7.5	5.4	9.5	265	100	36	517	64	124	34	7.0	13
4	7.4	5.0	8.4	162	200	44	391	58	66	28	7.6	7.8
5	7.1	6.5	8.4	120	349	76	299	55	47	27	9.6	6.1
6	6.6	6.1	9.3	232	236	67	253	64	41	24	7.6	4.6
7	6.4	5.2	7.0	365	196	61	196	61	42	23	4.9	3.0
8	7.6	4.8	5.1	235	192	54	166	58	35	25	5.4	2.8
9	13	5.0	8.0	176	162	50	172	68	32	24	5.4	2.2
10	13	5.2	13	134	129	45	299	249	28	17	5.2	2.1
11	9.2	5.4	32	104	123	41	290	572	26	13	4.8	1.4
12	6.6	5.9	168	88	111	41	324	572	30	12	4.4	1.7
13	6.4	6.8	137	88	95	40	273	517	38	12	5.1	1.2
14	6.5	6.0	158	88	82	38	232	408	36	11	4.1	1.3
15	7.7	6.1	91	72	73	35	188	320	41	9.9	3.2	1.7
16	10	6.4	61	65	67	34	156	286	54	24	3.5	1.8
17	9.2	6.0	48	61	72	46	134	204	48	19	3.2	1.8
18	9.5	6.2	40	59	80	100	118	156	44	12	5.5	1.2
19	7.9	7.3	37	52	65	136	104	129	42	11	6.6	1.3
20	7.1	6.9	32	48	61	170	93	111	35	9.8	12	.8
21	6.0	5.3	28	46	52	149	86	99	34	9.5	7.6	1.2
22	5.8	7.2	27	45	54	246	80	91	79	12	4.0	.8
23	6.5	5.5	28	53	51	307	75	78	58	14	4.1	1.4
24	9.3	6.0	28	113	46	257	70	72	40	9.7	3.4	1.1
25	4.7	5.9	32	86	50	220	68	65	34	7.9	2.8	1.4
26	3.3	5.0	30	75	45	216	70	59	36	6.8	2.6	1.3
27	5.0	6.8	25	84	45	204	62	54	98	8.9	2.4	.9
28	5.1	5.3	21	78	47	249	55	49	92	9.7	1.8	2.1
29	6.2	7.5	20	73	46	282	51	46	55	11	.9	1.3
30	7.0	10	19	179	------	467	48	42	40	14	1.1	1.7
31	6.7	------	19	150	------	853	------	39	------	9.4	1.9	------

Note.—Discharge estimated for periods of ice effect, Jan. 21 to Feb. 2, Feb. 16-20, Dec. 16-31, 1930, Jan. 1-16, Dec. 27-31, 1931, Mar. 8-18, 1932, and for period of no gage-height record. Jan. 31 to Feb. 4, 1932.

Monthly discharge, in second-feet, of Great Trough Creek near Markelsburg, 1930-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1930					
January 17-31	70	48	54.8	0.647	0.36
February	772	41	142	1.68	1.75
March	384	86	188	2.22	2.56
April	250	65	122	1.44	1.61
May	104	34	56.7	.669	.77
June	32	9.6	19.7	.233	.26
July	21	3.6	7.58	.089	.10
August	5.6	2.0	3.24	.038	.04
September	4.0	1.2	2.06	.024	.03
1930-31					
October	2.5	.6	1.81	.021	.02
November	4.3	1.6	2.53	.030	.03
December	15	1.5	4.05	.048	.06
January	24	1.7	7.15	.084	.10
February	64	4.5	21.7	.256	.27
March	555	13	68.1	.804	.93
April	635	38	199	2.35	2.62
May	1,060	68	250	2.95	3.40
June	116	25	58.7	.693	.77
July	487	26	122	1.44	1.66
August	69	9.5	22.8	.269	.31
September	73	6.6	16.3	.192	.21
The year	1,060	.6	64.8	.765	10.38
1931-32					
October	13	3.3	7.51	.089	.10
November	10	4.8	6.09	.072	.08
December	168	5.1	38.2	.451	.52
January	365	45	120	1.42	1.64
February	349	45	105	1.24	1.34
March	853	34	150	1.77	2.04
April	937	48	215	2.54	2.83
May	572	39	155	1.83	2.11
June	124	26	48.7	.575	.64
July	36	6.8	16.8	.198	.23
August	12	.9	4.87	.057	.07
September	13	.8	2.59	.031	.03
The year	937	.8	72.4	.855	11.63

SUSQUEHANNA BASIN—STATION NO. 37

AUGHWICK CREEK NEAR ORBISONIA*

LOCATION.—Chain gage at highway bridge 600 feet above East Broad Top Railroad bridge, 650 feet above mouth of Three Springs Creek, and 2¼ miles southwest of Orbisonia, Huntingdon County.

DRAINAGE AREA.—174 square miles (revised).

RECORDS AVAILABLE.—May, 1915, to February, 1916; January, 1930, to September, 1932.

EXTREME.—Maximum discharge during period ending Sept. 30, 1930, 3,810 second-feet Mar. 8 (gage height, 7.7 feet from graph based on gage readings); minimum, 4.1 second-feet Aug. 14, Sept. 7 (gage height, 1.70 feet).

Maximum gage height during year ending Sept. 30, 1931, 10.67 feet July 10 (discharge not determined); minimum, 1.79 feet Oct. 1 (discharge not determined).

Maximum discharge during year ending Sept. 30, 1932, 4,190 second-feet Mar. 31 (gage height, 7.99 feet); minimum, 3.8 second-feet Sept. 25-27 (gage height, 1.70 feet).

1915-1916, 1930-1932: Maximum gage height, that of July 10, 1931; minimum discharge, that of Sept. 25-27, 1932.

Maximum stage known, about 17.3 feet in October, 1929 (discharge not determined).

*Records, May, 1915, to February, 1916, published as Aughwick Creek at Pogue.

REMARKS.—Records fair except those for estimated periods, which are poor. Daily and monthly discharge not computed for 1931 owing to bridge construction and dredging operations at and below gage. The following discharge measurements were obtained during the year ending Sept. 30, 1931:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet		Feet	Second-feet
1930			1930			1930		
Oct. 1	1.82	4.1	Oct. 21	1.90	4.2	Nov. 26	1.90	7.7
Oct. 1	1.82	4.1	Oct. 31	2.02	6.5	Nov. 26	1.90	8.3
Oct. 1	1.82	4.9	Oct. 31	2.02	6.5	Dec. 5	1.89	7.4
Oct. 2	1.82	4.0	Nov. 6	2.01	9.2	Dec. 5	1.89	7.1
Oct. 2	1.82	3.8	Nov. 11	2.01	8.1	Dec. 10	1.95	18.2
Oct. 10	1.92	4.7	Nov. 11	2.01	7.2	Dec. 10	1.95	18.7
Oct. 10	1.92	4.4	Nov. 20	2.04	10.5	1931		
Oct. 21	1.93	4.5	Nov. 20	2.04	9.6	Jan. 6	2.02	19.8
						Jan. 27	2.12	34.2

Daily mean gage height, in feet, of Aughwick Creek near Orbisonia, 1930-1931.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.81	1.94	1.88	1.95	2.03	2.00	6.42	2.70	2.64	1.94	2.10	2.00
2	1.82	1.92	1.85	1.96	1.96	2.28	6.10	2.61	2.54	3.07	2.05	1.97
3	1.82	1.95	1.89	1.89	1.94	2,16	4.38	2.76	2.40	2.65	2.02	2.18
4	1.86	1.96	1.90	1.90	1.94	2.12	4.06	2.56	2.32	3.37	2.05	2.10
5	1.86	1.96	1.90	1.90	1.92	2.08	3.58	2.46	2.27	2.57	2.02	2.04
6	1.86	2.02	1.91	2.10	1.95	2.02	3.33	2.41	2.24	2.61	2.03	1.98
7	1.87	1.98	1.95	2.65	1.92	2.01	3.20	2.40	2.21	3.76	1.96	1.93
8	1.88	1.98	1.98	2.28	1.92	2.06	3.03	6.00	2.36	2.89	1.95	1.92
9	1.90	2.00	1.98	2.14	1.94	2.58	2.84	4.68	2.20	3.12	1.95	1.90
10	1.92	1.98	1.96	2.08	1.94	2.34	2.68	3.88	2.10	9.12	2.53	1.88
11	1.93	1.99	1.91	1.98	2.06	2.19	2.56	3.47	2.07	6.89	2.93	1.88
12	1.98	2.00	1.90	2.02	2.06	2.18	2.44	3.33	2.05	4.26	2.23	1.88
13	2.00	2.00	1.90	1.99	2.00	2.18	2.38	3.67	2.02	3.45	2.11	1.88
14	2.02	2.02	1.88	1.96	2.08	2.10	2.32	4.17	2.00	3.00	2.03	1.85
15	2.05	2.00	1.89	1.96	2.44	2.10	2.29	4.22	2.13	2.73	2.00	1.83
16	2.02	2.00	1.82	1.98	2.24	2.16	2.24	3.80	2.63	2.62	1.97	1.85
17	2.02	2.02	1.86	1.94	2.14	2.24	2.22	3.48	2.18	3.14	1.95	1.92
18	2.04	2.02	1.84	1.92	2.19	2.36	2.20	3.22	2.09	4.83	1.93	2.12
19	2.04	2.02	1.84	2.00	2.32	2.38	2.16	3.04	2.04	3.37	1.90	2.04
20	2.01	2.04	1.84	2.00	2.61	2.39	2.12	2.96	2.00	3.17	1.94	1.94
21	1.90	2.04	1.86	2.20	2.44	2.40	2.08	3.68	1.98	4.57	1.98	1.90
22	1.90	2.02	1.86	2.16	2.30	2.34	2.98	3.38	1.95	3.64	2.04	1.88
23	1.90	1.96	1.86	2.10	2.23	2.31	5.96	7.28	2.00	3.07	2.03	1.86
24	1.90	1.94	1.84	2.04	2.14	2.24	4.03	5.23	2.22	2.86	1.99	1.90
25	1.95	1.93	1.88	1.98	2.04	2.24	3.53	4.20	2.09	2.61	2.01	1.94
26	1.94	1.90	1.88	2.02	1.98	2.26	3.46	3.78	2.03	2.44	1.95	1.96
27	1.95	1.88	1.94	2.12	1.96	2.19	3.40	3.38	2.13	2.31	2.31	2.16
28	1.99	1.86	1.94	2.12	1.95	2.35	3.09	3.10	2.09	2.25	2.17	2.02
29	2.04	1.86	1.97	2.08	-------	5.80	2.98	2.92	2.00	2.17	2.27	1.98
30	2.00	1.89	1.97	2.08	-------	4.07	2.84	2.84	1.96	2.23	2.12	1.90
31	2.02	-------	2.00	1.98	-------	3.50	-------	2.81	-------	2.14	2.04	-------

Daily discharge, in second-feet, of Aughwick Creek near Orbisonia, 1930 and 1931-1932.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930									
1	------	87	565	157	157	31	9.9	8.4	6.0
2	------	100	445	153	133	27	8.9	6.8	6.0
3	------	110	348	143	121	24	7.8	8.4	5.2
4	------	130	267	137	100	17	9.9	7.8	4.6
5	------	160	230	119	98	14	14	8.9	4.9
6	------	130	218	123	89	17	14	6.5	4.9
7	------	118	267	483	87	15	15	6.3	4.1
8	------	110	2,970	320	94	14	22	6.3	4.6
9	------	107	1,150	267	85	17	24	6.3	4.9
10	------	120	655	230	71	32	17	5.4	5.2
11	------	110	565	218	62	39	15	5.2	4.9
12	------	103	523	195	61	29	14	4.6	4.9
13	------	140	416	175	56	20	14	5.2	
14	------	165	334	165	59	15	16	5.2	
15	------	130	280	153	129	14	15	6.3	
16	155	117	267	139	105	12	15	8.9	8
17	129	112	254	173	80	12	14	9.9	
18	94	110	254	157	66	23	11	8.9	
19	108	130	363	157	71	43	11	7.8	
20	98	206	267	131	81	28	10	6.5	
21	92	191	242	137	66	17	7.8	6.3	
22	90	173	218	334	54	13	8.9	5.4	
23	88	175	195	293	46	11	11	5.7	6
24	87	163	191	267	41	14	12	6.3	
25	86	1,490	195	242	50	12	11	6.3	
26	86	1,150	378	206	47	18	6.5	5.7	
27	90	1,310	267	184	39	31	7.8	5.7	
28	100	820	218	167	35	23	8.9	6.3	5
29	100	------	195	157	34	14	8.9	7.8	
30	90	------	191	151	34	11	7.8	5.7	
31	88	------	173	------	29	------	8.4	6.3	------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	19	31	53	57	276	61	2,760	193	53	33	14	5.8
2	21	29	47	992	251	55	1,380	235	186	39	11	5.8
3	19	25	37	513	208	53	882	140	149	33	12	6.3
4	20	25	29	294	372	69	553	122	82	29	15	39
5	19	27	29	203	936	206	457	122	53	29	12	29
6	19	27	27	372	574	156	388	122	53	33	12	12
7	19	25	25	553	439	201	324	108	53	25	11	8.8
8	19	21	23	388	340	161	273	95	41	21	8.8	7.8
9	33	21	24	309	271	110	324	113	33	29	8.3	7.8
10	19	25	35	240	229	75	616	294	33	21	7.3	6.8
11	19	25	72	193	214	60	637	1,380	29	19	8.8	6.3
12	19	25	219	159	196	55	729	1,240	37	16	7.3	5.8
13	16	29	163	154	161	55	574	1,690	57	16	6.8	5.8
14	19	25	203	144	133	53	457	1,170	57	16	6.8	5.8
15	19	25	144	122	117	50	356	729	53	12	6.8	5.8
16	16	25	100	111	106	52	309	513	279	25	6.8	5.3
17	21	29	74	95	117	100	259	388	91	33	6.8	5.3
18	21	25	61	86	149	372	216	294	74	19	7.8	4.8
19	19	29	53	82	108	309	196	246	69	16	11	4.8
20	16	27	43	72	104	340	173	214	53	14	17	4.8
21	19	25	37	69	91	324	156	188	78	12	15	4.8
22	19	25	37	65	86	372	144	159	159	21	11	4.8
23	16	25	41	80	82	637	133	138	95	25	8.3	4.8
24	16	21	39	246	47	574	115	122	53	19	7.8	4.8
25	19	25	43	178	91	457	115	111	37	14	7.8	3.8
26	17	21	35	138	65	405	122	113	33	11	6.8	3.8
27	16	25	25	163	63	356	102	95	80	11	6.3	4.8
28	14	29	23	144	67	729	89	82	78	11	6.3	6.8
29	21	27	23	131	69	729	80	69	53	17	5.8	6.3
30	25	37	25	356	------	1,530	76	61	41	20	5.8	6.8
31	37	------	33	256	------	3,930	------	57	------	19	5.8	------

Note.—Discharge estimated for periods of ice effect, Jan. 19 to Feb. 3, Feb. 17-19, 1930, Dec. 8, 9, 28, 29, 1931, Mar. 9-17, 1932, and for period of backwater effect from bridge construction, Sept. 13-30, 1930.

Monthly discharge, in second-feet, of Aughwick Creek near Orbisonia, 1930 and 1931-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1930					
January 16-31	155	86	98.8	0.568	0.34
February	1,490	87	285	1.64	1.71
March	2,970	173	422	2.43	2.80
April	483	119	198	1.14	1.27
May	157	29	73.5	.422	.49
June	43	11	20.2	.116	.13
July	24	6.5	12.1	.070	.08
August	9.9	4.6	0.68	.038	.04
September	8	4.1	5.97	.034	.04
1931-32					
October	37	14	19.7	.113	.13
November	37	21	26.0	.149	.17
December	219	23	58.8	.338	.39
January	992	57	228	1.31	1.51
February	936	47	206	1.18	1.27
March	3,930	50	408	2.34	2.70
April	2,760	76	433	2.49	2.78
May	1,690	57	342	1.97	2.27
June	279	29	74.7	.429	.48
July	39	11	21.2	.122	.14
August	17	5.8	9.16	.053	.06
September	39	3.8	7.84	.045	.05
The year	3,930	3.8	153	.879	11.95

SUSQUEHANNA BASIN—STATION NO. 38

TUSCARORA CREEK NEAR PORT ROYAL

LOCATION.—Water-stage recorder at highway bridge, 2 miles southwest of Port Royal, Juniata County. Chain gage at same site used prior to Aug. 5, 1931.

DRAINAGE AREA.—205 square miles.

RECORDS AVAILABLE.—August, 1911, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 5,850 second-feet Apr. 16 (gage height, 10.4 feet from graph based on gage readings); minimum, 4.8 second-feet Sept. 1, 8 (gage height, 1.88 feet).

Maximum discharge during year ending Sept. 30, 1930, about 13,000 second-feet Oct. 23 (gage height, 16.21 feet); minimum, 2.0 second-feet Sept. 29 (gage height, 1.70 feet).

Maximum discharge during year ending Sept. 30, 1931, 4,390 second-feet July 11 (gage height, 9.44 feet); minimum, 2.7 second-feet Dec. 22 (gage height, 1.77 feet).

Maximum discharge during year ending Sept. 30, 1932, 3,510 second-feet Apr. 1 (gage height, 8.71 feet); minimum, 1.8 second-feet Oct. 16 (gage height, 2.24 feet).

1911-1932: Maximum discharge, that of Oct. 23, 1929; minimum, 1 second-foot Aug. 31, Sept. 4-6, 14, 18, 1913, Sept. 21, 1914.

REMARKS.—Records prior to Aug. 5, 1931, are fair except those for periods of ice effect, which are extremely poor. Records Aug. 5, 1931, to Sept. 30, 1932, are good except those for high stages and those for periods of ice effect, which are fair. Diurnal regulation at low stages from operations at gristmills upstream.

Daily discharge, in second-feet, of Tuscarora Creek near Port Royal, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	114	31	71	36	65	1,050	164	310	90	77	23	6.6
2	75	33	85	77	60	820	134	325	75	86	25	11
3	61	34	63	55	60	820	124	1,110	77	74	26	14
4	54	33	54	38	60	820	124	876	72	65	14	7.8
5	51	40	50	36	65	1,050	390	664	69	56	38	6.2
6	96	43	50	95	89	2,420	1,170	548	69	55	25	7.4
7	62	37	31	320	200	1,510	570	766	65	66	25	14
8	50	37	21	140	180	766	426	570	67	62	18	10
9	41	36	14	85	130	616	340	484	82	47	24	16
10	37	36	29	120	100	310	526	407	67	45	24	27
11	35	31	31	260	80	356	714	340	53	48	12	19
12	37	38	19	140	65	356	1,170	310	53	41	28	16
13	40	29	41	80	55	484	934	310	61	37	34	13
14	33	25	29	50	55	1,170	714	282	60	37	38	33
15	33	33	60	50	55	1,300	616	256	57	39	23	75
16	31	33	72	50	60	1,050	3,080	220	53	25	30	48
17	34	31	62	60	85	820	3,910	208	50	28	29	30
18	36	29	60	124	140	570	1,660	175	41	28	11	31
19	39	35	50	164	260	484	1,050	208	37	31	10	23
20	35	49	40	186	200	407	766	256	39	31	18	29
21	33	67	32	121	150	340	714	208	48	16	12	19
22	44	51	28	99	120	296	766	220	63	31	12	12
23	35	48	22	105	100	296	570	164	67	25	10	15
24	43	45	20	105	95	269	464	154	994	31	12	19
25	67	35	20	124	100	232	444	144	444	33	10	19
26	50	38	22	106	750	220	664	124	505	45	14	15
27	40	21	24	99	3,180	208	505	111	186	41	18	12
28	39	24	37	100	1,660	175	426	110	164	25	12	11
29	41	33	33	80	-------	164	464	108	164	35	8.2	7.8
30	35	42	36	90	-------	164	372	111	99	26	15	18
31	31	-------	37	77	-------	186	-------	100	-------	27	11	-------
1929–30												
1	25	230	125	410	109	705	154	154	53	26	8.3	4.2
2	874	185	121	392	123	570	154	144	54	25	6.8	10
3	2,600	276	118	428	134	447	144	134	45	25	6.0	7.2
4	668	614	116	375	154	375	144	120	41	23	6.0	7.5
5	288	375	120	282	185	326	125	114	41	24	11	7.9
6	154	282	144	230	185	311	148	111	49	105	7.9	6.2
7	118	230	185	255	164	395	697	111	52	288	7.9	8.3
8	88	196	255	255	144	3,490	428	111	40	46	6.8	2.8
9	68	174	230	282	134	1,640	296	100	54	33	6.8	7.5
10	54	144	185	230	120	899	242	90	100	27	7.9	6.0
11	50	144	164	185	112	705	218	74	71	26	3.2	5.3
12	49	144	125	185	120	705	207	80	48	25	7.5	6.0
13	43	114	144	255	154	486	196	77	38	21	7.5	5.3
14	44	121	329	255	207	410	207	73	38	26	5.3	6.8
15	36	164	506	255	185	342	185	316	32	23	9.0	3.2
16	34	174	358	230	154	326	207	224	34	23	14	8.3
17	58	180	282	185	144	311	342	134	28	20	9.0	7.2
18	33	1,510	282	164	154	296	282	118	66	20	11	7.9
19	30	1,380	342	144	185	410	282	144	294	26	13	8.3
20	5.3	685	326	144	242	311	242	185	114	12	11	7.5
21	21	466	196	134	296	268	218	134	47	14	10	7.5
22	3,610	358	164	134	242	230	375	109	44	14	10	2.8
23	6,100	282	154	134	218	207	326	95	38	19	8.3	7.9
24	906	255	144	125	242	207	296	90	33	23	7.5	7.2
25	527	242	144	125	2,370	207	255	97	34	18	3.9	7.2
26	375	218	144	121	1,800	296	230	87	33	13	8.3	6.0
27	282	207	144	120	1,240	242	207	71	31	3.9	8.3	6.0
28	218	207	255	116	951	196	185	84	36	2.8	8.3	6.8
29	185	164	506	123	-------	185	174	74	30	14	7.5	2.2
30	174	134	392	114	-------	174	164	71	27	10	7.9	8.3
31	207	-------	375	112	-------	164	-------	64	-------	10	6.8	-------

Daily discharge, in second-feet, of Tuscarora Creek near Port Royal, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	6.0	11	7.0	6.0	14	29	780	185	218	44	34	41
2	6.8	8.3	21	5.0	10	36	2,420	164	185	53	28	35
3	4.8	12	15	4.0	13	43	800	185	154	121	32	36
4	4.8	10	12	4.5	12	35	705	174	125	60	27	44
5	6.8	12	15	5.5	11	34	447	134	125	174	30	35
6	3.0	7.9	12	20	8.0	26	342	121	111	82	31	24
7	4.2	7.5	21	60	5.3	27	311	125	116	219	25	26
8	8.3	14	38	50	9.0	63	375	777	164	190	24	21
9	5.7	13	25	40	15	196	255	800	118	563	55	18
10	7.5	6.8	23	26	15	134	230	506	90	775	136	16
11	5.3	12	8.6	16	15	71	185	375	82	2,690	76	16
12	3.7	13	11	15	16	60	154	296	68	640	64	15
13	3.9	15	8.6	14	17	47	134	494	60	326	42	9.5
14	6.4	11	8.0	12	20	45	125	912	55	218	36	16
15	6.8	12	7.0	11	24	49	111	1,120	55	185	31	14
16	7.5	7.5	5.0	11	30	63	105	659	56	164	23	16
17	8.6	17	4.0	10	112	66	98	486	64	125	24	21
18	8.6	12	3.5	10	154	97	92	375	50	134	22	23
19	12	13	4.0	18	134	114	80	311	40	118	21	43
20	2.9	10	4.0	34	134	114	74	311	35	125	22	26
21	12	10	3.5	28	123	100	66	771	34	185	25	31
22	10	11	3.0	22	82	84	135	597	34	100	24	48
23	8.6	7.9	3.0	19	68	84	1,550	2,810	36	230	21	29
24	9.0	7.5	3.0	17	63	74	756	1,520	119	118	29	20
25	10	13	3.0	17	44	71	447	951	95	84	21	19
26	8.3	72	3.0	18	42	87	447	705	56	56	23	26
27	4.4	46	5.0	20	37	74	466	466	460	54	83	47
28	13	56	10	50	34	111	311	375	164	47	121	40
29	12	55	24	44	-------	1,190	268	311	77	41	190	27
30	10	54	15	30	-------	643	218	255	56	40	99	20
31	12	-------	90	18	-------	311	-------	242	-------	42	55	-------
1931–32												
1	22	22	42	156	176	72	2,800	149	72	42	12	19
2	19	24	49	282	155	62	1,460	295	67	46	21	26
3	16	21	32	578	155	56	980	169	70	40	16	26
4	7.6	16	23	281	187	61	702	143	78	43	16	346
5	18	16	23	179	610	127	558	136	87	39	16	128
6	15	17	16	445	410	147	491	147	110	39	18	62
7	12	18	23	800	297	160	411	149	68	33	14	35
8	15	12	20	416	250	140	346	131	54	34	12	28
9	18	22	17	314	221	125	361	142	50	33	16	21
10	18	20	25	244	176	120	617	281	49	25	12	23
11	40	15	34	184	176	118	650	1,080	46	24	9.4	13
12	22	15	82	147	162	120	697	1,210	43	25	12	9.1
13	15	16	118	153	137	115	585	1,060	67	18	13	16
14	13	21	585	164	113	108	487	898	69	16	9.2	14
15	12	14	125	128	104	105	598	678	61	17	6.4	12
16	2.2	27	81	112	91	105	324	504	69	17	11	12
17	16	20	58	99	104	144	278	395	71	14	8.3	13
18	12	18	47	95	138	360	250	311	54	15	12	9.3
19	15	17	41	81	108	331	224	259	61	17	11	6.7
20	16	16	34	73	89	448	202	229	58	21	11	13
21	14	20	35	66	77	411	181	204	48	28	13	11
22	11	13	31	67	82	417	170	184	53	145	17	11
23	15	20	32	71	79	668	157	162	71	55	17	9.9
24	14	21	38	130	60	540	143	145	47	26	14	9.4
25	13	17	33	120	65	436	142	130	37	28	13	9.6
26	14	12	36	85	71	372	144	121	36	20	12	5.7
27	18	15	24	94	67	350	131	109	118	19	10	13
28	18	22	28	117	74	606	115	97	104	18	8.9	11
29	14	15	27	94	82	768	103	87	98	18	5.2	9.4
30	25	28	23	231	-------	1,300	98	86	51	19	15	8.6
31	29	-------	27	328	-------	3,020	-------	76	-------	14	15	-------

Note.—Discharge estimated for periods of ice effect, Dec. 20–22, 24, 26, 1928, Jan. 3–17, Feb. 1–5, 7–26, Nov. 30 to Dec. 7, Dec. 23–26, 1929, Jan. 19 to Feb. 21, Nov. 28 to Dec. 1, Dec. 14–31, 1930, Jan. 1 to Feb. 16, 1931, Feb. 1, 2, Mar. 7–16, 1932.

Monthly discharge, in second-feet, of Tuscarora Creek near Port Royal, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	114	31	46.8	0.228	0.26
November	67	21	36.6	.178	.20
December	85	14	40.1	.196	.23
January	320	36	106	.517	.60
February	3,180	55	294	1.43	1.49
March	2,420	164	636	3.10	3.57
April	3,910	124	799	3.90	4.35
May	1,110	100	328	1.60	1.84
June	994	37	132	.644	.72
July	86	16	42.4	.207	.24
August	38	8.2	19.7	.096	.11
September	75	6.2	19.5	.095	.11
The year	3,910	6.2	207	1.01	13.72
1929–30					
October	6,100	5.3	578	2.82	3.25
November	1,510	114	328	1.60	1.78
December	506	116	228	1.11	1.28
January	428	112	210	1.02	1.18
February	2,370	109	374	1.82	1.90
March	3,490	164	511	2.49	2.87
April	697	125	244	1.19	1.33
May	316	64	116	.566	.65
June	294	27	54.8	.267	.30
July	288	2.8	31.8	.155	.18
August	14	3.2	8.15	.040	.05
September	10	2.2	6.53	.032	.04
The year	6,100	2.2	224	1.09	14.81
1930–31					
October	13	2.9	7.51	.037	.04
November	15	4.6	10.1	.049	.05
December	38	3.0	10.8	.053	.06
January	60	4.0	21.1	.103	.12
February	154	5.3	45.0	.220	.23
March	1,190	26	135	.659	.76
April	2,420	66	416	2.03	2.26
May	2,810	121	565	2.76	3.18
June	460	34	103	.502	.56
July	2,690	40	258	1.26	1.45
August	190	21	47.5	.232	.27
September	48	9.5	26.8	.131	.15
The year	2,810	2.9	138	.673	9.13
1931–32					
October	40	2.2	16.4	.080	.09
November	28	12	18.3	.089	.10
December	185	16	45.5	.222	.26
January	982	66	227	1.11	1.28
February	610	60	156	.761	.82
March	3,020	56	384	1.87	2.16
April	2,800	98	480	2.34	2.61
May	1,210	76	315	1.54	1.78
June	118	36	65.6	.320	.36
July	145	14	30.5	.149	.17
August	21	5.2	12.8	.062	.07
September	346	5.7	31.0	.151	.17
The year	3,020	2.2	148	.722	9.87

COCOLAMUS CREEK NEAR MILLERSTOWN

LOCATION.—Water-stage recorder at highway bridge, 2.3 miles northeast of Millerstown, Perry County, and 3 miles above confluence with Juniata River.

DRAINAGE AREA.—55.8 square miles.

RECORDS AVAILABLE.—February, 1930, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1930, about 1,560 second-feet Mar. 8 (gage height, 4.95 feet); minimum, 2.4 second-feet Aug. 10 (gage height, 0.83 foot).

Maximum discharge during year ending Sept. 30, 1931, about 1,700 second-feet Apr. 1 (gage height, 5.15 feet); minimum, 2.0 second-feet Oct. 21 (gage height, 0.80 foot).

Maximum discharge during year ending Sept. 30, 1932, 1,240 second-feet May 11 (gage height, 4.50 feet); minimum, 0.7 second-foot Aug. 15 (gage height, 0.81 foot).

REMARKS.—Records excellent except those for high stages, for periods of ice effect, and for period when record chart ran out, Mar. 4-9, 1932, which are fair. Some regulation at low stages from gristmill operations upstream. Water-stage recorder, well, shelter, and concrete weir furnished by United States Engineer Office, Baltimore, Md.

Daily discharge, in second-feet, 1930-1932.

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930								
1	-------	161	57	40	28	15	4.5	3.7
2	-------	143	57	39	28	13	5.4	3.2
3	-------	117	48	42	25	11	4.8	4.0
4	-------	89	46	32	22	10	3.4	5.6
5	-------	81	42	34	20	9.0	4.3	4.5
6	-------	79	65	34	18	12	4.3	4.0
7	-------	102	221	32	24	24	4.5	4.5
8	52	1,060	134	34	15	12	4.2	3.5
9	37	397	100	28	25	11	4.2	3.7
10	53	221	81	24	75	85	3.8	5.6
11	39	178	73	22	48	22	4.2	4.3
12	35	131	65	25	30	14	4.0	4.0
13	67	113	67	22	25	11	5.2	3.5
14	81	89	61	24	21	11	4.3	4.6
15	71	77	52	117	15	12	5.2	3.4
16	56	71	61	98	15	8.8	5.4	5.0
17	50	71	96	53	37	8.0	5.0	5.0
18	53	71	92	61	42	8.6	4.8	4.5
19	67	102	89	71	61	8.4	5.0	4.2
20	102	73	77	65	42	7.1	4.6	3.5
21	113	65	73	53	35	6.1	5.4	3.5
22	106	59	85	48	27	6.7	4.5	3.2
23	92	52	69	44	24	6.8	4.8	3.0
24	92	46	63	52	19	6.7	4.2	3.7
25	246	52	57	61	18	6.5	4.3	4.0
26	655	92	52	46	14	5.9	4.3	3.7
27	571	71	48	32	17	5.4	5.8	3.5
28	263	71	46	57	13	5.0	5.4	3.7
29	-------	73	46	52	11	6.1	4.2	3.4
30	-------	67	42	42	11	4.6	4.0	3.2
31	-------	63	-------	35	-------	4.2	4.0	-------

Daily discharge, in second-feet, of Cocolamus Creek near Millerstown, 1930-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	3.6	4.5	5.5	5.4	7.8	12	461	30	55	10	7.0	7.5
2	3.6	4.2	5.0	4.0	6.9	11	561	26	45	7.3	5.1	7.0
3	3.4	3.9	4.2	3.5	6.3	10	181	28	39	8.3	5.2	14
4	3.2	3.3	4.6	3.8	6.7	11	175	28	34	29	10	9.2
5	3.2	4.5	4.7	4.3	6.0	8.4	122	22	30	17	7.2	9.5
6	3.0	4.7	5.5	42	5.0	9.2	104	20	28	15	5.5	6.6
7	2.9	3.6	6.6	23	5.9	8.1	100	26	53	79	4.8	4.8
8	3.1	3.9	5.9	10	5.1	42	116	113	66	28	4.6	6.2
9	3.7	4.3	7.8	8.9	6.3	60	83	87	35	38	40	6.1
10	3.7	3.8	6.0	8.8	6.7	27	71	71	27	160	461	4.9
11	4.0	4.0	4.4	7.6	7.0	20	65	61	26	137	160	4.4
12	3.7	4.2	4.2	6.7	6.1	17	53	55	21	56	52	4.0
13	3.4	4.3	4.0	6.0	8.0	14	48	266	18	39	34	4.3
14	3.3	3.8	3.6	5.7	9.1	13	44	465	16	28	21	3.5
15	3.5	4.4	2.8	5.2	10	11	40	402	19	21	23	5.7
16	3.9	4.4	2.5	5.-	12	14	35	201	23	18	15	4.6
17	4.5	4.0	2.2	5.0	17	16	30	138	27	15	14	5.8
18	3.7	4.2	2.0	5.0	39	25	31	104	16	16	11	6.1
19	4.1	5.0	2.0	5.0	39	18	22	87	16	11	10	5.3
20	4.6	5.4	2.0	5.0	34	21	25	96	11	11	9.7	4.5
21	2.8	4.1	2.0	5.0	30	18	22	338	11	18	10	3.6
22	3.9	4.3	2.1	5.0	27	15	22	197	9.2	12	7.9	4.4
23	4.5	4.0	2.2	5.0	24	15	59	879	11	11	8.2	4.4
24	4.8	4.0	2.5	5.1	21	16	37	340	14	10	9.0	4.0
25	4.5	3.1	2.9	6.0	13	16	26	204	12	9.4	8.6	3.4
26	4.8	2.8	3.8	7.0	14	20	40	146	12	7.6	7.4	4.8
27	3.8	2.6	9.9	18	12	16	58	109	47	6.3	11	8.3
28	3.1	2.7	18	26	12	28	42	87	12	7.1	24	4.6
29	4.2	2.8	12	13	-------	340	39	73	11	6.5	24	5.7
30	3.8	3.6	9.0	11	-------	121	34	65	9.1	12	11	5.0
31	3.8	-------	7.3	9.5	-------	77	-------	57	-------	9.1	8.1	-------
1931-32												
1	4.6	5.8	8.8	68	63	28	718	69	24	6.8	2.7	3.3
2	4.1	4.4	6.7	289	52	26	334	67	28	8.0	3.7	2.8
3	4.4	4.3	6.1	131	50	26	210	50	25	6.6	4.7	7.0
4	4.6	5.8	5.9	68	58	32	148	48	31	6.5	7.9	8.5
5	3.4	5.9	6.2	47	77	42	120	47	54	7.7	6.2	6.9
6	4.2	6.2	6.0	102	59	50	104	46	47	9.0	4.9	8.5
7	4.2	5.3	4.5	146	57	50	89	59	30	8.3	3.4	4.2
8	5.0	5.6	3.9	98	60	35	81	68	23	8.7	3.1	3.7
9	6.5	4.8	6.3	79	49	25	83	89	21	7.7	2.7	2.4
10	5.2	5.0	6.6	62	44	23	117	138	18	5.1	3.4	2.4
11	4.9	5.8	8.8	49	44	25	170	661	17	4.7	3.8	2.3
12	3.3	5.9	15	38	43	28	168	521	13	6.3	2.9	1.8
13	4.3	6.1	25	54	40	27	136	316	29	4.6	2.5	2.3
14	4.3	5.3	39	45	32	25	111	207	31	4.7	2.9	2.7
15	4.7	5.3	24	42	32	20	96	153	30	3.5	1.5	2.6
16	5.3	5.3	16	40	28	20	83	120	22	3.7	1.7	2.4
17	5.9	5.7	12	32	29	35	77	100	26	4.4	2.6	2.1
18	5.0	6.4	9.8	37	32	86	71	85	18	2.9	2.7	2.3
19	4.1	6.2	8.4	31	27	103	60	75	12	2.6	9.3	2.1
20	3.3	6.1	8.4	28	23	158	54	65	16	5.4	5.0	2.0
21	4.3	5.8	6.9	24	18	138	52	56	13	7.3	3.7	2.1
22	4.9	6.0	7.6	25	23	151	51	53	14	8.0	2.3	1.9
23	4.4	5.7	9.3	30	20	141	47	48	10	7.7	3.1	2.1
24	4.8	5.0	12	47	17	122	43	42	9.1	4.7	2.1	1.9
25	4.8	6.2	10	39	16	102	45	39	7.2	3.3	1.9	1.9
26	3.8	5.8	7.9	32	18	96	42	36	11	2.3	1.9	1.9
27	4.4	5.2	7.5	40	23	98	42	33	19	18	1.9	2.2
28	5.0	6.0	7.3	36	36	206	35	36	17	42	1.3	3.4
29	6.2	6.5	8.5	32	34	290	32	29	9.6	11	1.5	3.7
30	6.8	6.0	7.2	92	-------	453	31	29	7.5	6.3	3.9	3.3
31	6.4	-------	6.7	78	-------	809	-------	27	-------	4.5	4.9	-------

Note.—Discharge estimated for periods of ice effect, Feb. 16-18, Nov. 26-29, Dec. 15-26, 1930, Jan. 1-4, 13-27, Feb. 15-23, 1931, Feb. 1, 2, 16-26, Mar. 7-17, 1932. Record based on chain-gage readings Mar. 4-9, 1932.

Monthly discharge, in second-feet, of Cocolamus Creek near Millerstown, 1930-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1930					
March 8-28	1,060	46	134	2.40	2.77
April	221	42	72.2	1.29	1.44
May	117	22	45.8	.821	.95
June	75	11	26.8	.480	.54
July	85	4.2	12.1	.217	.25
August	5.8	3.4	4.58	.082	.09
September	5.0	3.0	3.97	.071	.08
1930-31					
October	4.8	2.8	3.75	.067	.08
November	5.4	2.6	3.95	.071	.08
December	18	2.0	5.07	.091	.10
January	42	3.5	9.05	.162	.19
February	29	5.0	14.2	.254	.26
March	340	8.1	33.9	.608	.70
April	561	22	91.5	1.64	1.83
May	879	20	156	2.80	3.23
June	66	9.1	25.1	.450	.50
July	160	6.3	27.5	.493	.57
August	461	4.6	33.2	.595	.69
September	14	3.4	5.74	.103	.11
The year	879	2.0	34.2	.613	8.34
1931-32					
October	6.8	3.3	4.75	.085	.10
November	6.5	4.3	5.65	.101	.11
December	39	3.9	10.3	.185	.21
January	289	24	63.3	1.13	1.30
February	77	16	38.1	.683	.74
March	809	20	112	2.01	2.32
April	718	31	115	2.06	2.30
May	661	27	110	1.97	2.27
June	54	7.2	21.1	.378	.42
July	42	2.3	7.49	.134	.15
August	7.9	1.3	3.42	.061	.07
September	8.5	1.8	3.22	.058	.06
The year	809	1.3	41.3	.740	10.05

SHERMAN CREEK AT SHERMANDALE

LOCATION.—Water-stage recorder at highway bridge at Shermandale, Perry County. Zero of gage is 421.90 feet above mean sea level. Chain gage at same site and datum used prior to Jan. 29, 1930.

DRAINAGE AREA.—200 square miles.

RECORDS AVAILABLE.—September, 1929, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1929, 48 second-feet Sept. 30 (gage height, 1.34 feet); minimum, 18 second-feet Sept. 21, 28, 29 (gage height, 1.12 feet).

Maximum discharge during year ending Sept. 30, 1930, about 6,290 second-feet Oct. 23 (gage height, 8.6 feet from graph based on gage readings); minimum, 7.3 second-feet Sept. 11 (gage height, 0.91 foot).

Maximum discharge during year ending Sept. 30, 1931, 3,460 second-feet May 22 (gage height, 6.18 feet); minimum, 3.9 second-feet Dec. 1 (gage height, 0.72 foot).

Maximum discharge during year ending Sept. 30, 1932, 2,320 second-feet Mar. 31 (gage height, 5.08 feet); minimum discharge, 6.5 second-feet Sept. 12; minimum gage height, 0.90 foot Dec. 29.

Maximum stage known, 20.34 feet (from high water marks) July 22, 1927 (discharge not determined).

REMARKS.—Records good except those based on chain-gage readings prior to Jan. 29, 1930 and those for estimated periods, which are poor. Regulations from power operations upstream. Water-stage recorder, well, and shelter furnished by United States Engineer Office, Baltimore, Md.

Daily discharge, in second-feet, 1929-1932.

Day	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30													
1	-------	39	152	145	354	125	621	190	165	69	45	18	13
2	-------	1,440	162	140	368	130	542	190	165	75	49	18	22
3	-------	1,800	303	135	423	150	437	183	159	66	43	20	20
4	-------	458	452	135	390	220	372	179	139	60	32	18	21
5	-------	208	363	140	328	210	328	165	133	57	40	21	17
6	-------	139	254	160	282	180	311	218	124	55	38	19	15
7	-------	124	194	210	262	160	384	849	124	55	70	16	12
8	-------	96	162	240	262	150	2,750	532	133	47	64	17	13
9	-------	80	159	245	266	140	1,310	400	118	73	56	12	20
10	-------	66	149	200	231	135	843	332	106	203	36	15	18
11	-------	82	169	133	223	131	697	290	96	130	37	16	14
12	-------	87	156	139	194	130	648	254	101	84	32	17	19
13	-------	84	162	219	204	140	501	231	89	67	29	17	18
14	-------	57	136	266	262	200	418	238	95	61	31	26	22
15	-------	50	156	350	311	185	363	212	265	52	45	18	23
16	-------	42	146	286	278	165	341	227	191	56	32	22	28
17	-------	57	227	242	246	155	328	307	130	93	34	23	24
18	-------	61	1,220	266	190	155	320	262	115	189	32	20	26
19	-------	32	990	350	159	160	428	258	142	210	30	20	23
20	36	44	573	307	156	175	332	235	183	117	22	19	17
21	26	48	447	278	145	190	294	235	139	84	22	23	18
22	26	1,750	372	238	142	205	258	303	117	65	29	16	14
23	34	3,000	324	225	139	225	238	270	98	60	26	19	18
24	33	604	286	220	136	255	231	238	104	56	25	15	19
25	27	400	258	220	134	1,620	235	227	134	54	26	14	17
26	30	311	235	225	133	1,180	346	212	115	59	23	17	15
27	33	235	227	235	131	1,110	294	194	93	87	23	18	22
28	22	159	223	254	130	786	246	186	96	63	16	21	17
29	23	156	204	368	129	-------	223	179	103	50	28	16	12
30	42	159	159	324	128	-------	216	172	91	45	26	16	20
31	-------	194	-------	311	127	-------	208	-------	84	-------	23	15	-------

Daily discharge, in second-feet, of Sherman Creek at Shermandale, 1929-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	19	22	23	18	29	38	950	169	242	38	42	29
2	21	17	25	15	34	51	1,580	156	219	48	40	60
3	16	19	32	14	29	47	686	165	183	167	32	58
4	15	19	40	14	27	43	516	156	165	104	43	38
5	15	27	30	17	26	38	372	136	156	107	37	33
6	12	26	25	82	24	36	303	124	166	81	33	24
7	20	20	26	100	23	33	317	157	176	327	30	29
8	20	18	34	64	22	89	466	750	186	104	28	25
9	21	25	38	42	22	211	368	641	136	107	26	18
10	17	14	33	34	31	118	300	432	112	456	111	20
11	19	30	29	30	32	81	260	350	103	806	168	21
12	18	28	26	32	34	64	227	307	86	269	84	17
13	15	23	29	30	38	54	201	390	81	165	53	17
14	18	23	17	28	50	49	186	516	75	121	46	19
15	21	24	16	27	75	46	172	605	78	102	51	17
16	19	22	14	26	123	65	156	456	95	96	37	17
17	25	20	13	25	108	71	149	381	88	83	37	23
18	21	35	13	25	120	91	139	324	69	76	30	30
19	15	25	12	40	118	102	130	320	58	73	33	30
20	11	25	12	58	106	106	118	354	51	213	34	28
21	21	26	11	50	90	96	109	913	47	270	34	31
22	21	20	11	47	69	86	114	704	46	217	34	22
23	20	22	11	40	64	85	464	2,500	100	177	30	25
24	21	16	10	38	55	80	286	1,260	155	112	37	26
25	21	24	10	36	48	82	227	843	104	75	34	21
26	19	26	12	39	43	86	250	653	61	59	33	23
27	12	21	18	46	42	79	303	496	68	55	28	24
28	32	14	44	70	37	116	223	400	84	49	38	29
29	24	16	38	54	-------	1,150	204	337	57	49	82	26
30	29	16	30	44	-------	529	190	290	45	64	50	26
31	25	-------	22	34	-------	311	-------	262	-------	51	46	-------
1931-32												
1	21	27	38	82	96	76	1,790	290	93	42	19	25
2	18	21	40	559	92	67	1,080	333	90	52	28	30
3	16	25	38	302	95	61	814	217	106	43	26	26
4	14	23	29	158	163	69	616	194	105	40	41	30
5	18	25	23	106	415	102	506	187	109	48	47	46
6	18	21	23	216	256	145	458	194	134	43	39	43
7	17	22	18	473	202	158	396	184	100	46	30	36
8	18	20	16	252	182	140	349	164	73	54	19	30
9	18	21	18	212	164	130	387	169	66	41	31	23
10	20	19	26	171	134	130	702	244	65	32	18	19
11	18	22	52	131	132	135	872	1,330	56	33	19	16
12	18	23	71	106	124	135	814	1,800	67	27	24	14
13	22	24	63	123	112	115	637	1,910	88	25	18	19
14	20	29	70	118	91	97	506	1,160	115	22	11	21
15	17	25	60	102	88	94	429	786	94	22	12	21
16	17	17	46	88	79	105	367	605	82	26	18	23
17	22	20	34	74	89	170	328	476	80	20	24	23
18	29	27	32	74	92	323	295	397	94	22	23	14
19	18	25	27	66	94	309	269	336	96	25	24	13
20	17	22	26	58	86	398	237	297	75	22	25	18
21	20	20	26	53	70	352	222	268	68	30	22	23
22	21	23	26	55	78	395	206	242	88	138	14	22
23	19	18	35	59	80	563	193	214	89	56	22	20
24	16	22	32	79	60	427	179	191	60	27	18	21
25	15	24	34	81	70	362	180	176	47	41	22	16
26	17	25	32	63	70	340	176	168	44	44	20	13
27	21	18	30	69	66	332	159	155	73	42	21	26
28	18	25	25	84	76	660	145	140	121	38	16	25
29	23	24	30	75	84	781	130	125	83	35	15	31
30	23	28	29	105	-------	1,040	124	114	54	34	38	19
31	28	-------	27	143	-------	1,810	-------	97	-------	26	36	-------

Note.—Discharge estimated for periods of ice effect, Dec. 1-10, 23-27, 1929, Jan. 29 to Feb. 24, Dec. 4-6, 17-31, 1930, Jan. 1 to Feb. 15, Dec. 8, 9, 1931, Feb. 2, 3, Mar. 8-16, 1932, and for periods when recorder clock stopped, Apr. 10, 11, June 6, 7, Nov. 11, 12, 1931, Feb. 18, 19, May 27, 29, Aug. 7, 1932.

Monthly discharge, in second-feet, of Sherman Creek at Shermandale, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
September 20-30	42	22	30.2	0.151	0.06
1929-30					
October	3,000	32	388	1.94	2.24
November	1,220	136	301	1.50	1.67
December	368	133	232	1.16	1.34
January	423	127	221	1.10	1.27
February	1,620	125	313	1.56	1.62
March	2,750	208	486	2.43	2.80
April	849	165	266	1.33	1.48
May	265	84	127	.635	.73
June	210	45	81.5	.408	.46
July	70	16	34.1	.170	.20
August	26	14	18.1	.090	.10
September	28	12	18.6	.093	.10
The year	1,910	12	207	1.04	14.01
1930-31					
October	32	11	19.5	.098	.11
November	35	14	22.1	.110	.12
December	44	10	22.7	.114	.13
January	100	14	39.3	.196	.23
February	123	52	54.2	.271	.28
March	1,150	33	133	.665	.77
April	1,580	109	332	1.66	1.85
May	2,500	124	502	2.51	2.89
June	242	45	110	.550	.61
July	806	38	152	.760	.88
August	168	26	46.3	.232	.27
September	60	17	26.9	.134	.15
The year	2,500	10	122	.610	8.29
1931-32					
October	29	14	19.3	.096	.11
November	29	17	22.8	.114	.13
December	71	16	34.7	.174	.20
January	559	53	140	.700	.81
February	415	60	119	.595	.64
March	1,810	61	323	1.62	1.87
April	1,790	124	452	2.26	2.52
May	1,910	97	425	2.12	2.44
June	134	44	83.8	.419	.47
July	138	20	38.6	.193	.22
August	47	11	33.9	.120	.14
September	46	13	23.5	.118	.13
The year	1,910	11	152	.710	9.68

CONODOGUINET CREEK NEAR HOGESTOWN

LOCATION.—Water-stage recorder, 1,000 feet above highway bridge, three-eighths mile below mouth of Hogestown Run, and 1 mile northeast of Hogestown, Cumberland County. Chain gage at highway bridge, 1,000 feet downstream, used prior to Aug. 4, 1931.

DRAINAGE AREA.—470 square miles.

RECORDS AVAILABLE.—September, 1929, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1929, 203 second-feet Sept. 20 (gage height, 0.98 foot); minimum, 54 second-feet Sept. 29 (gage height, 0.52 foot).

Maximum discharge during year ending Sept. 30, 1930, about 5,150 second-feet Oct. 2 (gage height, determined from hydrograph, 6.6 feet); minimum, 47 second-feet Sept. 20 (gage height, 0.48 foot).

Maximum discharge during year ending Sept. 30, 1931, 4,040 second-feet May 23 (gage height, determined from hydrograph, 5.7 feet); minimum, 24 second-feet Dec. 16 (gage height, 0.28 foot).

(Above gage heights are referred to chain gage).

Maximum discharge during year ending Sept. 30, 1932, 4,090 second-feet Mar. 29 (gage height, 6.07 feet); minimum, 34 second-feet Dec. 8 (gage height, 0.54 foot).

REMARKS.—Records fair except those prior to Aug. 4, 1931, and those for estimated periods, which are poor. Diurnal regulation from power operations upstream.

Daily discharge, in second-feet, 1929-1932.

Day	Sept	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30													
1	-------	84	368	220	726	200	1,130	856	303	151	130	96	84
2	-------	1,870	323	210	726	200	962	348	279	96	150	63	93
3	-------	4,010	432	205	810	220	782	335	214	102	116	87	102
4	-------	2,400	869	200	753	250	645	331	192	102	116	90	96
5	-------	1,030	753	280	565	320	565	307	210	109	106	116	87
6	-------	672	531	264	498	520	565	389	199	102	102	70	78
7	-------	498	462	271	487	400	498	930	237	99	106	68	68
8	-------	539	410	275	453	360	2,470	930	237	112	148	63	57
9	-------	339	348	376	476	340	2,550	645	256	123	155	63	75
10	-------	264	307	343	444	320	1,580	531	233	210	123	87	75
11	-------	237	283	319	400	310	1,200	480	203	229	102	93	61
12	-------	225	351	275	356	300	1,160	458	177	134	93	68	70
13	-------	203	307	248	385	350	930	427	203	155	102	96	87
14	-------	195	287	335	436	480	726	410	177	130	106	93	68
15	-------	144	264	620	645	380	672	381	218	112	123	96	68
16	-------	177	215	672	640	320	609	335	364	109	93	87	81
17	-------	159	374	517	517	310	579	432	323	155	93	93	102
18	-------	137	2,460	476	450	320	565	432	248	453	78	96	75
19	-------	177	3,120	599	400	360	640	406	214	494	87	96	68
20	203	148	1,500	672	360	390	599	402	248	339	99	96	54
21	144	130	1,030	498	330	390	517	360	233	225	72	93	57
22	90	438	782	368	300	380	466	372	199	169	72	90	57
23	102	3,550	640	320	280	380	410	449	199	116	93	75	57
24	112	1,820	550	300	260	380	423	385	151	148	57	93	54
25	102	1,030	522	299	240	1,400	432	368	173	144	54	87	61
26	96	758	466	290	230	2,050	489	335	151	144	68	93	61
27	90	531	444	320	220	2,050	517	303	214	221	96	148	61
28	126	466	389	376	210	1,540	458	268	180	225	106	99	68
29	70	389	352	427	200	-------	414	291	144	203	65	169	63
30	102	311	229	536	200	-------	402	275	126	116	96	75	59
31	-------	397	-------	494	200	-------	368	-------	120	-------	52	81	-------

Daily discharge, in second-feet, of Conodoguinet Creek near Hogestown, 1929-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	57	52	70	75	65	112	888	229	327	102	141	98
2	49	84	47	65	63	120	3,220	206	303	90	148	126
3	68	47	62	55	90	137	1,860	206	283	109	123	682
4	46	50	65	48	75	141	1,130	177	233	109	121	491
5	63	57	57	45	55	96	810	214	237	246	116	244
6	44	72	54	50	45	126	614	180	173	230	116	192
7	57	42	59	135	38	93	545	177	177	265	108	142
8	52	65	52	155	36	184	753	275	210	343	106	135
9	50	44	84	200	35	389	584	773	287	236	104	143
10	63	43	59	120	80	436	484	560	199	247	160	132
11	46	75	49	80	110	291	423	436	169	2,460	506	118
12	61	54	59	70	105	210	356	368	126	1,070	339	114
13	46	44	54	65	105	180	295	397	109	545	226	106
14	50	70	59	62	130	148	275	555	106	410	173	96
15	59	49	61	60	150	141	244	753	109	291	146	94
16	45	70	34	55	188	96	233	672	141	225	143	98
17	61	78	30	52	203	210	214	522	195	264	137	104
18	54	49	30	52	237	180	199	440	109	206	104	108
19	19	50	29	65	268	148	184	385	137	244	111	195
20	52	54	28	130	339	229	148	444	87	710	101	135
21	50	59	27	115	376	223	184	1,180	93	828	104	114
22	59	42	27	100	323	214	137	1,650	93	1,380	101	124
23	44	50	26	88	260	192	209	2,530	90	806	104	141
24	57	57	27	82	223	192	583	2,450	206	452	104	111
25	61	42	28	80	203	173	335	1,310	322	348	116	118
26	47	39	30	85	162	148	319	962	180	256	114	111
27	59	38	70	95	116	144	376	726	112	206	108	108
28	59	39	175	85	116	148	352	531	162	195	108	104
29	68	41	130	80	-------	1,240	275	458	106	184	114	120
30	57	46	105	72	-------	1,670	244	397	123	195	121	118
31	55	-------	90	67	-------	888	-------	360	-------	166	108	-------
1931–32												
1	102	78	75	231	275	172	2,230	433	245	182	97	86
2	97	88	111	1,280	269	150	1,680	624	237	151	92	104
3	96	79	112	1,250	270	138	1,280	477	217	177	89	82
4	95	96	108	739	347	147	998	352	218	138	107	80
5	78	84	88	498	950	190	814	325	260	150	102	71
6	68	62	93	605	514	300	728	334	273	191	110	72
7	106	83	69	1,460	656	744	637	312	231	184	103	77
8	152	70	71	1,040	533	400	565	321	208	171	102	70
9	139	91	84	838	470	400	574	304	200	157	93	74
10	81	57	95	662	378	280	1,310	347	173	153	89	66
11	87	111	94	514	352	280	1,940	1,630	172	118	101	75
12	94	83	98	434	303	250	1,700	2,660	181	111	89	62
13	56	88	212	400	285	230	1,280	3,120	191	119	86	59
14	94	77	230	399	256	220	1,000	2,760	223	117	84	64
15	77	83	209	345	206	210	808	1,660	248	118	78	62
16	90	65	205	308	214	210	680	1,220	223	114	73	74
17	79	67	170	273	219	272	592	982	219	103	73	64
18	83	90	133	238	243	429	537	755	223	109	94	59
19	91	100	121	236	258	524	488	630	316	84	77	61
20	56	77	112	218	204	490	447	564	236	107	87	52
21	98	95	99	189	192	478	414	514	237	110	72	60
22	94	67	114	188	176	592	392	462	229	200	87	63
23	66	96	128	187	188	1,110	351	412	295	279	65	64
24	70	75	135	234	174	1,020	334	381	198	153	89	63
25	96	74	145	284	147	785	329	342	173	129	73	55
26	72	80	100	227	159	654	331	332	198	111	84	61
27	50	83	134	237	157	580	314	316	222	112	72	52
28	86	74	98	212	165	2,520	298	303	294	109	74	76
29	110	84	99	229	162	3,430	269	268	249	103	72	69
30	79	91	105	255	-------	2,180	260	254	184	101	77	58
31	85	-------	99	326	-------	1,710	-------	260	-------	97	86	-------

Note.—Discharge estimated for periods of ice effect, Dec. 1-5, 26-27, 1929, Jan. 11, Jan. 18 to Feb. 24, Nov. 26 to Dec. 7, Dec. 17-31, 1930, Jan. 1 to Feb. 15, 1931, Mar. 8-16, 1932, and for periods of missing recorder record, Dec. 11-16, 1931, May 3-8, Aug. 30 to Sept. 4, 1932.

Monthly discharge, in second-feet, of Conodoguinet Creek near Hogestown, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
September 20–30	203	70	112	0.238	0.10
1929–30					
October	4,040	84	747	1.59	1.83
November	3,120	229	648	1.38	1.54
December	672	200	374	.796	.92
January	810	200	425	.904	1.04
February	2,050	200	544	1.16	1.21
March	2,550	368	785	1.67	1.92
April	930	268	422	.898	1.00
May	364	120	214	.455	.52
June	494	96	174	.370	.41
July	155	52	98.0	.209	.24
August	148	63	89.0	.189	.22
September	102	54	71.4	.152	.17
The year	4,040	52	382	.813	11.02
1930–31					
October	68	44	55.1	.117	.13
November	84	38	53.4	.114	.13
December	175	26	57.3	.122	.14
January	200	45	83.5	.178	.21
February	376	35	150	.319	.33
March	1,670	93	287	.611	.70
April	3,220	137	549	1.17	1.30
May	2,530	177	662	1.41	1.63
June	327	87	174	.370	.41
July	2,460	90	433	.921	1.06
August	506	101	143	.304	.35
September	682	94	157	.334	.37
The year	3,220	26	234	.498	6.76
1931–32					
October	152	50	88.0	.187	.22
November	111	57	81.6	.174	.19
December	230	69	121	.257	.30
January	1,460	187	469	.998	1.15
February	950	147	315	.670	.72
March	3,430	138	680	1.45	1.67
April	2,230	260	786	1.67	1.86
May	3,120	254	761	1.62	1.87
June	316	172	226	.481	.54
July	279	84	137	.291	.34
August	110	65	86.5	.184	.21
September	104	52	68.0	.145	.16
The year	3,430	50	319	.679	9.23

SWATARA CREEK AT HARPER TAVERN*

LOCATION.—Water-stage recorder at highway bridge at Harper Tavern, Lebanon County, 6 miles (revised) northwest of Annville, and 8½ miles below mouth of Little Swatara Creek. Zero of gage is 355.53 feet above mean sea level. Chain gage at same site and datum used prior to July 16, 1931.

DRAINAGE AREA.—333 square miles (revised).

RECORDS AVAILABLE.—December, 1918, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 8,000 second-feet Mar. 6 (gage height, 10.5 feet from graph based on gage readings); minimum, 30 second-feet Sept. 3 (gage height, 0.20 foot).

Maximum discharge during year ending Sept. 30, 1930, about 8,740 second-feet Oct. 3 (gage height, 11.20 feet); minimum, 24 second-feet Sept. 30 (gage height, 0.17 foot).

Maximum discharge during year ending Sept. 30, 1931, 2,950 second-feet May 8 (gage height, 5.60 feet from graph based on gage readings); minimum, 13 second-feet Sept. 25 (gage height, 0.08 foot).

Maximum discharge during year ending Sept. 30, 1932, 7,020 second-feet Mar. 28 (gage height, 9.50 feet); minimum, 8 second-feet Sept. 24, 25 (gage height, 0.03 foot).

1918-1932: Maximum discharge, about 13,500 second-feet Nov. 6, 1926; maximum gage height (estimated), 13.5 feet Mar. 5, 6, 1920, affected by ice; minimum discharge, that of Sept. 24, 25, 1932.

REMARKS.—Records fair except those prior to July 16, 1931, and those for estimated periods, which are poor. Diurnal regulation from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	83	57	282	140	95	1,940	348	861	207	173	48	33
2	98	56	269	360	110	1,320	300	913	173	157	48	40
3	65	61	168	260	120	1,020	300	3,300	152	131	50	30
4	65	103	162	130	130	1,020	284	2,130	147	107	79	36
5	61	152	160	110	150	3,390	490	1,670	140	100	57	38
6	170	111	122	1,890	200	5,420	717	1,320	165	98	48	56
7	114	65	81	763	1,530	2,450	454	1,200	138	89	52	71
8	63	71	85	528	1,140	1,320	400	913	136	89	43	269
9	57	59	67	547	588	1,140	365	763	143	81	59	547
10	57	65	77	630	382	811	382	673	129	87	65	238
11	69	77	125	1,020	238	763	436	588	129	85	316	114
12	71	59	140	547	180	717	717	547	98	77	184	79
13	69	57	103	400	170	763	861	588	98	69	77	65
14	61	65	83	222	152	1,460	717	528	94	61	118	400
15	54	61	162	190	155	1,890	717	528	140	65	811	547
16	54	61	125	220	173	1,890	1,890	472	170	59	222	269
17	57	73	116	260	173	1,390	4,020	400	118	57	111	454
18	63	67	131	340	131	1,080	2,450	385	92	65	85	717
19	65	134	175	550	110	967	1,670	509	81	418	73	300
20	67	348	145	400	85	717	1,390	630	207	178	63	207
21	81	238	85	320	75	673	1,260	490	238	92	57	162
22	69	134	65	260	85	630	1,460	509	316	65	54	147
23	71	143	55	200	110	636	1,140	418	238	61	48	129
24	73	111	65	180	140	588	811	382	588	61	54	116
25	77	125	110	150	365	528	861	365	673	75	43	109
26	71	98	120	130	2,770	490	2,450	300	1,080	436	46	96
27	61	81	110	120	6,470	454	1,600	284	418	116	50	85
28	50	89	65	110	3,480	400	1,390	238	300	77	77	81
29	77	81	65	95	-------	348	1,460	300	400	89	46	83
30	54	134	110	85	-------	365	1,020	254	238	100	44	134
31	59	-------	85	85	-------	365	-------	207	-------	69	36	-------

*Formerly published as Swatara Creek at Harpers.

Daily discharge, in second-feet, of Swatara Creek at Harper Tavern, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	110	313	350	530	295	1,240	482	348	192	167	34	36
2	3,110	248	340	600	290	1,180	462	330	181	280	36	68
3	6,120	462	330	380	300	894	422	348	159	181	34	48
4	2,280	747	325	660	400	747	403	296	139	135	34	57
5	1,300	523	320	620	750	654	366	280	130	116	33	33
6	894	462	320	590	620	654	486	248	127	125	33	39
7	747	422	330	590	560	609	4,860	218	142	366	36	38
8	609	384	560	609	480	1,520	2,590	203	152	172	34	36
9	482	330	410	700	440	1,060	1,720	195	150	112	33	30
10	403	280	360	565	420	844	1,300	175	366	197	28	30
11	348	313	310	462	410	844	1,060	154	422	105	36	24
12	313	296	263	462	410	1,120	894	139	192	95	30	25
13	296	263	330	609	500	844	795	135	181	76	36	242
14	263	280	544	700	1,300	700	844	205	135	76	30	160
15	248	280	654	894	1,240	654	654	782	121	76	39	46
16	232	280	609	795	1,060	609	795	626	107	70	41	99
17	192	280	523	609	960	565	1,120	403	547	74	101	103
18	203	2,980	609	530	860	565	844	366	2,580	62	55	44
19	195	2,550	844	480	1,810	844	844	384	1,300	64	42	41
20	170	1,580	795	440	820	609	747	565	795	60	36	36
21	110	1,180	609	410	950	523	654	462	565	60	39	36
22	324	894	530	390	860	422	654	348	482	55	33	28
23	700	747	496	370	820	403	609	330	366	53	38	28
24	384	654	450	355	1,000	422	523	280	296	60	33	28
25	263	609	430	340	1,790	482	482	523	263	121	34	39
26	232	544	410	330	1,700	1,060	442	366	248	57	34	90
27	218	502	403	320	2,070	795	422	296	232	46	36	42
28	172	482	405	315	1,580	700	403	280	200	46	33	28
29	159	384	410	310	-------	609	366	348	154	49	33	25
30	197	360	420	305	-------	565	330	280	135	49	27	25
31	232	-------	450	300	-------	544	-------	232	-------	38	25	-------
1930–31												
1	28	41	82	47	80	107	976	232	192	66	66	40
2	25	36	97	46	60	142	1,440	232	218	60	49	48
3	30	36	70	50	50	105	894	248	147	64	53	467
4	30	39	38	40	45	78	795	218	132	60	58	160
5	28	59	46	38	45	74	654	181	121	64	49	82
6	25	44	39	450	40	70	565	159	139	70	41	60
7	25	39	49	320	45	70	609	183	240	1,130	42	54
8	24	34	42	250	70	344	654	1,750	1,480	595	30	44
9	25	33	42	200	75	941	482	1,450	523	197	36	37
10	25	41	42	160	60	523	403	944	313	310	209	35
11	31	42	42	140	50	330	384	795	280	834	777	33
12	25	39	36	120	48	256	313	654	248	330	228	31
13	28	42	30	105	50	232	280	700	175	232	132	26
14	27	49	27	90	90	218	263	747	149	175	98	28
15	28	51	23	80	200	203	252	609	159	142	72	24
16	30	42	20	75	400	183	218	502	232	131	65	28
17	28	57	17	70	471	248	200	442	366	110	54	31
18	33	66	18	70	1,010	366	200	403	218	94	46	36
19	30	48	18	150	565	296	181	366	137	88	37	32
20	31	42	17	600	384	330	167	296	130	99	40	29
21	33	36	17	550	280	348	152	403	105	126	43	26
22	33	33	16	400	218	313	149	422	110	1,050	35	25
23	34	31	16	330	192	296	313	442	103	243	40	28
24	33	31	15	280	178	248	280	422	107	228	51	25
25	41	33	17	230	139	330	203	366	84	288	50	20
26	36	28	22	210	125	422	248	330	90	128	41	27
27	34	23	300	200	118	313	482	263	72	93	47	35
28	34	23	422	220	90	356	313	218	60	78	78	26
29	36	22	125	150	-------	2,120	280	203	58	72	210	24
30	48	28	64	130	-------	1,560	263	200	58	138	85	22
31	39	-------	50	100	-------	1,000	-------	175	-------	92	53	-------

Daily discharge, in second-feet, of Swatara Creek at Harper Tavern, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	30	51	76	156	257	181	3,580	632	178	97	31	22
2	27	44	54	763	245	146	2,310	1,080	180	107	31	18
3	26	42	39	642	290	132	1,660	652	204	87	34	16
4	26	39	39	408	419	135	1,200	553	176	93	66	17
5	30	36	38	298	733	140	984	500	175	110	53	22
6	26	36	61	1,190	501	171	862	675	147	116	36	28
7	23	34	43	1,900	460	429	744	610	133	156	39	21
8	59	33	40	1,140	454	250	654	616	118	116	50	17
9	126	34	28	1,070	396	205	633	987	115	93	57	18
10	77	34	65	771	331	185	1,060	887	109	56	43	18
11	41	34	142	603	351	175	1,140	965	104	81	43	13
12	32	31	141	492	328	170	973	1,350	110	52	36	18
13	31	37	111	609	278	150	818	1,230	185	64	32	22
14	30	30	131	822	230	140	746	1,010	196	57	25	13
15	57	35	115	597	209	130	656	863	220	49	20	21
16	123	34	80	515	187	130	591	768	176	55	20	12
17	74	36	69	452	217	263	534	630	164	48	19	12
18	46	34	63	379	297	606	506	532	191	46	22	13
19	40	31	56	319	215	628	458	464	139	40	53	11
20	35	38	54	269	183	840	414	433	139	53	52	11
21	38	39	51	252	157	796	389	421	125	49	41	12
22	32	34	55	232	170	1,070	370	421	110	58	28	11
23	32	36	108	226	160	1,180	329	353	101	70	23	10
24	31	34	107	379	132	944	289	330	70	78	26	9
25	37	34	94	269	144	816	288	312	75	53	19	9
26	48	26	74	222	137	755	283	294	81	49	25	12
27	43	32	51	272	144	825	286	290	175	43	16	12
28	43	31	57	286	186	4,910	243	395	395	49	25	18
29	52	34	66	227	232	3,980	221	273	214	36	28	22
30	65	44	52	417	-------	2,350	206	219	121	35	24	20
31	62	-------	48	447	-------	2,220	-------	193	-------	34	27	-------

Note.—Discharge estimated for periods of ice effect, Dec. 21–31, 1928, Jan. 1–5, Jan. 15 to Feb. 6, Feb. 12, 19–24, Nov. 30 to Dec. 11, Dec. 22–31, 1929, Jan. 1–7, Jan. 18 to Feb. 24, Nov. 26–28, Dec. 15–27, 31, 1930, Jan. 1 to Feb. 16, 1931, Feb. 2, 3, Mar. 8–16, 1932, and for periods during which recorder failed to operate properly, Jan. 16–26, May 12–29, July 10–12, Sept. 9–21, 1932.

Monthly discharge, in second-feet, of Swatara Creek at Harper Tavern, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	170	50	71.2	0.214	0.25
November	348	56	101	.303	.34
December	382	55	123	.369	.43
January	1,890	85	363	1.09	1.26
February	6,470	75	697	2.09	2.18
March	5,420	348	1,190	3.57	4.12
April	4,020	284	1,080	3.24	3.62
May	3,300	207	730	2.19	2.52
June	1,080	81	242	.727	.81
July	436	57	112	.336	.39
August	811	36	102	.306	.35
September	717	30	188	.565	.63
The year	6,470	30	415	1.25	16.90
1929–30					
October	6,120	110	694	2.08	2.40
November	2,980	248	654	1.96	2.19
December	844	263	449	1.35	1.56
January	894	300	512	1.54	1.78
February	2,070	290	882	2.65	2.76
March	1,520	403	751	2.26	2.61
April	4,860	330	886	2.66	2.97
May	782	135	327	.982	1.13
June	2,580	107	368	1.11	1.24
July	366	38	105	.315	.36
August	101	25	37.0	.111	.13
September	242	24	53.5	.161	.18
The year	6,120	24	473	1.42	19.31
1930–31					
October	48	24	30.9	.093	.11
November	66	22	38.3	.115	.13
December	422	15	60.0	.180	.21
January	800	38	197	.592	.68
February	1,010	40	185	.556	.58
March	2,120	70	402	1.21	1.40
April	1,440	149	420	1.26	1.41
May	1,750	159	470	1.41	1.63
June	1,480	58	215	.646	.72
July	1,130	60	238	.715	.82
August	777	30	94.0	.282	.33
September	467	20	52.8	.159	.18
The year	2,120	15	201	.604	8.20
1931–32					
October	126	23	46.5	.140	.16
November	51	26	35.9	.108	.12
December	142	28	72.2	.217	.25
January	1,900	156	536	1.61	1.86
February	733	132	277	.832	.90
March	4,910	130	808	2.43	2.80
April	3,580	206	781	2.35	2.62
May	1,250	193	611	1.83	2.11
June	395	70	154	.462	.52
July	156	34	68.7	.206	.24
August	66	16	33.7	.101	.12
September	28	9	15.9	.048	.05
The year	4,910	9	287	.862	11.75

UPPER LITTLE SWATARA CREEK AT PINE GROVE*

LOCATION.—Water-stage recorder at highway bridge half a mile (revised) above mouth of creek and three-fourths mile southeast of Pine Grove, Schuylkill County. Chain gage at same site and datum used prior to Aug. 4, 1931.

DRAINAGE AREA.—34.3 square miles (revised).

RECORDS AVAILABLE.—November, 1919, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 1,000 second-feet Feb. 26 (gage height, 6.05 feet from graph based on gage readings); minimum, 3.8 second-feet Sept. 4 (gage height, 1.20 feet).

Maximum discharge during year ending Sept. 30, 1930, about 1,220 second-feet Oct. 2 (gage height, 6.7 feet from graph based on gage readings); minimum, 1.6 second-feet Sept. 11, 29 (gage height, 1.12 feet).

Maximum discharge during year ending Sept. 30, 1931, 424 second-feet Mar. 29; maximum gage height (estimated), 5.1 feet, affected by ice, Jan. 6; minimum discharge, 1.6 second-feet Oct. 14 (gage height, 1.13 feet).

Maximum discharge during year ending Sept. 30, 1932, 920 second-feet Mar. 28 (gage height, 5.74 feet); minimum, 1.0 second-foot at times in September (gage height, 1.09 feet).

1919-1932: Maximum discharge, about 1,500 second-feet Sept. 30, 1924; maximum gage height (estimated), 8.9 feet, affected by ice, Mar. 6, 1920; minimum discharge, that of September, 1932.

REMARKS.—Records fair except those for high stages and for periods of ice effect, which are poor. Regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	9.4	7.8	32	19	16	185	40	78	18	25	6.6	4.6
2	9.4	8.8	21	38	19	138	32	75	17	22	5.8	4.6
3	6.6	8.3	20	34	19	91	28	332	15	18	7.0	4.6
4	7.8	19	18	19	20	112	28	198	14	17	8.3	3.8
5	7.8	15	17	16	22	405	70	138	15	15	6.6	4.6
6	17	9.4	17	222	34	480	48	107	15	14	6.2	7.0
7	8.8	8.8	13	104	160	284	40	91	13	13	5.4	5.8
8	7.8	9.9	13	75	120	160	41	67	13	12	6.2	38
9	9.9	7.8	11	80	65	102	36	63	13	12	9.9	33
10	8.8	7.8	11	100	44	88	38	55	13	14	7.4	15
11	7.8	7.0	13	88	34	74	39	50	12	12	8.8	11
12	7.0	8.8	16	63	28	73	85	46	11	11	8.8	9.4
13	7.0	8.8	18	48	26	82	73	41	11	9.9	6.6	10
14	7.8	8.8	15	34	22	185	68	47	9.9	9.9	90	75
15	8.8	8.3	17	34	22	222	53	41	14	9.4	88	32
16	7.8	8.8	14	38	22	222	284	38	12	8.3	12	25
17	7.0	8.8	14	48	22	172	430	34	13	9.4	11	44
18	8.8	7.8	31	63	20	120	248	31	9.9	8.8	8.8	48
19	11	26	19	94	20	101	149	44	10	20	8.8	36
20	8.8	25	18	39	20	87	127	36	28	9.9	7.8	28
21	8.8	18	14	39	24	70	110	40	14	9.9	7.8	22
22	9.4	18	13	51	26	69	114	37	39	8.8	7.8	19
23	8.8	14	13	38	30	64	90	34	19	9.9	7.8	18
24	9.9	12	13	26	34	56	82	31	210	7.8	7.0	16
25	8.8	15	13	19	48	49	109	29	76	7.8	7.0	14
26	8.8	14	14	17	160	49	248	26	74	12	6.6	13
27	8.8	13	14	17	651	43	172	25	47	8.8	5.4	12
28	8.3	12	13	16	405	40	134	22	47	7.8	6.2	12
29	8.8	11	13	16	-------	34	124	26	38	8.3	5.4	12
30	7.8	14	13	16	-------	32	85	20	25	7.8	5.4	15
31	7.4	-------	14	16	-------	34	-------	22	-------	7.0	5.4	-------

*Formerly published as Little Swatara Creek near Pine Grove.

Daily discharge, in second-feet, of Upper Little Swatara Creek at Pine Grove, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	15	22	30	54	26	108	45	28	21	12	3.2	2.3
2	586	22	27	63	30	95	42	27	20	14	3.2	4.1
3	516	45	26	92	35	74	38	30	18	11	3.0	7.5
4	195	58	25	87	50	68	36	23	15	9.3	2.7	4.1
5	118	49	26	71	65	47	31	23	15	9.3	3.0	2.3
6	81	45	35	61	50	45	187	21	16	10	2.7	2.7
7	62	39	50	56	44	45	598	20	16	11	2.7	2.5
8	49	32	60	52	37	132	236	19	14	10	2.7	2.7
9	40	30	60	49	35	133	150	18	19	9.3	2.7	2.3
10	33	27	36	43	34	94	114	16	41	9.3	2.7	1.8
11	20	26	25	34	33	84	94	16	19	10	2.3	1.8
12	26	24	25	42	36	94	78	16	16	8.4	2.5	1.8
13	26	22	37	45	60	76	72	16	15	7.5	2.3	4.5
14	22	22	36	58	145	67	68	56	14	8.4	2.7	4.1
15	21	26	39	63	135	58	53	81	13	7.5	5.8	3.2
16	20	22	40	67	115	52	80	32	14	6.6	18	5.4
17	19	24	40	56	105	49	112	26	54	7.1	5.8	7.5
18	18	376	50	44	105	46	85	40	81	6.6	4.1	3.2
19	18	280	72	38	120	71	87	46	40	6.6	3.6	2.7
20	17	141	68	35	101	46	73	36	30	5.8	3.2	2.7
21	17	108	61	32	104	41	68	30	24	4.9	3.0	2.7
22	24	82	53	31	89	38	66	29	20	4.9	2.7	2.3
23	38	68	46	30	80	34	55	26	18	4.9	2.7	2.3
24	24	58	40	30	69	32	49	26	16	5.8	3.6	2.0
25	21	52	35	28	102	34	44	45	15	4.9	2.7	2.3
26	20	45	33	27	176	122	36	28	14	4.9	3.2	2.3
27	19	43	32	26	195	104	34	27	14	5.4	2.7	2.0
28	19	40	33	25	141	84	32	34	12	4.5	2.5	1.8
29	16	34	34	25	-------	69	28	30	12	4.1	1.8	1.8
30	22	32	38	25	-------	60	27	24	11	3.6	1.8	1.8
31	20	-------	47	24	-------	52	-------	23	-------	3.2	1.8	-------
1930–31												
1	1.8	3.2	10	8.0	12	21	141	26	20	8.0	11	5.6
2	1.8	2.7	14	7.0	10	20	141	28	18	8.0	9.8	6.3
3	1.8	3.2	6.6	8.0	9	18	110	27	16	8.0	10	21
4	1.8	3.2	5.8	11	8	18	102	22	14	8.4	10	9.1
5	2.3	4.1	5.8	15	6	17	76	22	13	8.4	9.1	7.5
6	1.8	3.6	5.8	25	5	14	64	20	13	8.4	7.5	6.4
7	2.0	4.1	5.8	50	5	15	76	40	81	66	7.1	6.0
8	2.0	3.2	4.9	38	5	125	62	131	92	24	7.1	5.3
9	2.0	4.1	4.1	31	8	101	49	147	38	12	7.9	4.9
10	2.3	3.2	3.2	25	10	61	44	101	30	110	94	4.9
11	2.3	3.2	3.2	22	7	41	40	85	26	95	31	4.6
12	2.3	3.0	3.6	19	6	31	35	66	21	52	22	4.2
13	2.3	4.1	3.2	15	7	29	32	81	19	36	17	3.9
14	1.8	3.6	2.7	12	13	26	29	72	17	28	12	3.9
15	2.0	3.6	2.5	10	20	23	26	63	16	24	11	3.9
16	2.3	4.1	2.3	9	40	30	26	52	23	20	11	4.6
17	2.7	7.5	2.1	11	110	36	24	49	29	18	9.5	5.3
18	2.7	4.9	1.9	12	130	38	24	45	18	17	7.9	5.3
19	2.7	3.6	1.8	25	90	38	20	41	15	17	7.9	4.2
20	2.5	4.9	1.8	90	80	40	20	38	14	15	7.5	3.5
21	3.0	2.7	1.7	70	70	42	19	40	13	15	7.5	3.5
22	3.2	2.7	1.7	55	60	44	19	33	12	49	7.1	3.3
23	4.1	2.7	1.7	42	50	43	45	44	12	34	7.7	3.2
24	4.1	2.7	1.7	35	40	38	24	32	12	31	9.1	2.8
25	4.1	4.1	1.7	27	30	60	21	30	11	18	7.1	2.5
26	4.1	3.3	5.0	22	20	54	48	27	10	14	6.8	3.9
27	4.1	2.0	45	20	18	46	40	24	9.8	14	7.1	4.9
28	4.5	1.7	27	38	19	53	34	20	9.3	12	8.3	3.5
29	4.9	1.7	24	25	-------	241	30	20	8.8	13	10	2.8
30	3.2	2.5	26	22	-------	205	26	18	7.5	15	7.5	2.8
31	3.2	-------	18	15	-------	125	-------	20	-------	12	6.4	-------

Daily discharge, in second-feet, of Upper Little Swatara Creek at Pine Grove, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	2.5	6.4	9.6	25	47	21	310	91	17	8.3	2.8	1.9
2	2.5	6.0	6.4	66	44	20	221	72	22	9.5	2.8	1.7
3	2.5	6.0	5.3	62	45	20	171	58	19	7.9	3.9	1.4
4	2.5	5.6	5.9	45	56	20	132	50	15	9.4	6.8	1.9
5	2.5	4.9	9.5	34	77	20	113	45	14	9.1	4.2	3.5
6	2.5	4.9	7.1	146	60	27	95	46	14	13	3.9	2.5
7	3.5	4.6	8.0	211	58	51	78	89	12	10	4.9	1.7
8	34	4.6	6.5	139	55	40	66	102	11	8.3	7.0	1.1
9	16	4.6	6.0	113	43	31	76	139	11	6.8	4.2	1.1
10	6.4	4.6	7.0	84	40	25	100	114	11	6.0	3.2	1.1
11	5.3	4.6	10	68	41	20	103	219	10	5.6	2.8	1.0
12	4.6	4.9	14	56	39	18	91	127	15	5.3	2.5	1.1
13	4.2	4.9	18	86	34	16	86	124	20	5.3	2.2	1.1
14	3.9	4.9	19	76	33	16	75	99	21	4.9	1.9	1.1
15	11	4.6	16	72	28	15	63	86	17	4.2	1.9	1.1
16	14	4.6	13	60	23	15	55	74	13	4.2	2.2	1.1
17	7.1	4.6	12	48	33	47	51	63	16	4.2	1.9	1.4
18	5.6	4.9	10	44	33	68	47	53	13	4.2	7.6	1.1
19	4.9	4.6	10	36	27	85	42	47	11	3.5	11	1.0
20	4.9	4.2	9.5	32	28	117	38	43	12	4.2	4.9	1.1
21	4.9	4.6	9.1	29	27	105	35	41	9.5	5.3	2.8	1.1
22	4.6	4.9	9.7	26	22	136	32	40	10	6.6	2.5	1.4
23	4.2	4.2	16	42	20	116	30	5[illegible]	8.7	14	2.2	1.1
24	4.6	4.2	12	36	25	102	30	29	7.5	5.6	1.9	1.1
25	4.6	4.2	12	26	20	86	29	27	7.1	4.9	1.9	1.1
26	4.2	4.2	11	22	18	85	30	24	10	4.2	1.7	1.1
27	4.2	4.2	11	38	19	79	28	41	13	4.2	1.9	2.2
28	4.2	4.6	10	30	31	660	23	30	22	4.6	4.2	4.6
29	8.0	4.9	11	29	25	372	22	23	10	3.9	2.8	3.5
30	8.7	8.6	11	63	-------	223	21	21	8.7	3.5	2.2	2.5
31	7.9	-------	10	52	-------	251	-------	19	-------	3.2	2.2	-------

Note.—Discharge estimated for periods of ice effect, Dec. 7-11, 21-31, 1928, Jan. 1-5, 8-10, 13-17, Jan. 24 to Feb. 26, Nov. 30 to Dec. 10, Dec. 22-30, 1929, Jan. 18 to Feb. 19, Nov. 27 to Dec. 1, Dec. 15-28, 1930, Jan. 1 to Feb. 26, Dec. 8-11, 27, 28, 1931, Feb. 1-3, Mar. 8-16, 1932. Records for Oct. 1, Nov. 18-24, 1931, based on chain-gage readings.

Monthly discharge, in second-feet, of Upper Little Swatara Creek at Pine Grove, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	17	6.6	8.73	0.255	1.29
November	26	7.0	12.1	.353	.39
December	32	11	16.0	.466	.54
January	222	16	49.3	1.44	1.66
February	651	16	76.2	2.22	2.31
March	480	32	127	3.70	4.27
April	430	28	108	3.15	3.51
May	352	20	62.1	1.81	2.09
June	210	9.9	28.9	.843	.94
July	25	7.0	11.8	.344	.40
August	90	5.4	12.6	.367	.42
September	75	3.8	19.7	.574	.64
The year	651	3.8	44.1	1.29	17.46
1929-30					
October	586	15	69.4	2.02	2.33
November	376	22	63.1	1.84	2.05
December	72	25	40.6	1.18	1.36
January	92	24	45.6	1.33	1.53
February	195	26	82.8	2.41	2.51
March	133	32	69.5	2.03	2.34
April	598	27	90.6	2.64	2.94
May	81	16	29.4	.857	.99
June	81	11	21.6	.630	.70
July	14	3.2	7.45	.217	.25
August	18	1.8	3.46	.101	.12
September	7.5	1.8	3.02	.088	.10
The year	598	1.8	43.5	1.27	17.22
1930-31					
October	4.9	1.8	2.76	.080	.09
November	7.5	1.7	3.45	.101	.11
December	45	1.7	8.21	.239	.28
January	90	7.0	26.3	.767	.88
February	130	5	31.7	.924	.96
March	241	14	54.6	1.59	1.83
April	141	19	48.2	1.41	1.57
May	147	18	47.2	1.38	1.59
June	92	7.5	21.3	.621	.69
July	110	8.0	26.1	.761	.88
August	94	6.4	12.7	.370	.43
September	21	2.5	5.14	.150	.17
The year	241	1.7	24.0	.700	9.48
1931-32					
October	34	2.5	6.47	.189	.22
November	8.6	4.2	4.92	.143	.16
December	19	5.3	10.5	.036	.35
January	211	22	61.2	1.78	2.05
February	77	18	36.2	1.06	1.14
March	660	15	93.8	2.73	3.15
April	310	21	76.4	2.23	2.49
May	219	19	66.7	1.94	2.24
June	22	7.1	13.4	.391	.44
July	14	3.2	6.25	.182	.21
August	11	1.7	3.51	.102	.12
September	4.6	1.0	1.62	.047	.05
The year	660	1.0	31.8	.927	12.62

WEST CONEWAGO CREEK NEAR MANCHESTER

LOCATION.—Water-stage recorder 500 feet above Manchester—York Haven highway bridge and 1½ miles north of Manchester, York County.

DRAINAGE AREA.—511 square miles.

RECORDS AVAILABLE.—October, 1928, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1929, about 20,300 second-feet Apr. 17 (gage height, 15.31 feet); minimum, 31 second-feet Sept. 5 (gage height, 1.40 feet).

Maximum discharge during year ending Sept. 30, 1930, 13,700 second-feet Oct. 2 (gage height, 12.58 feet); minimum, 2 second-feet Aug. 7, 8 (gage height, 1.16 feet).

Maximum discharge during year ending Sept. 30, 1931, 6,850 second-feet Apr. 2 (gage height, 9.14 feet); minimum, 2 second-feet Oct. 20 (gage height, 1.17 feet).

Maximum discharge during year ending Sept. 30, 1932, about 11,900 second-feet Mar. 28 (gage height, 12.12 feet); minimum, 3.5 second-feet Aug. 26 (gage height, 1.25 feet).

REMARKS.—Records good except those for periods of ice effect, those for periods when control was obstructed, and those estimated, which are poor. Records furnished by United States Geological Survey Office, Trenton, N. J., prior to Oct. 1, 1931. All costs of equipment, maintenance, and operation of station paid by Philadelphia Electric Co., Philadelphia, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	-------	115	184	174	110	2,460	282	500	304	378	89	49
2	-------	111	479	868	110	1,530	260	532	239	358	85	52
3	-------	113	246	521	110	1,530	225	11,200	264	319	69	45
4	-------	129	191	315	110	2,430	218	2,940	191	250	77	36
5	-------	390	165	228	120	5,570	694	1,450	191	500	61	36
6	-------	319	146	1,690	132	10,400	2,200	1,080	162	588	66	45
7	-------	194	135	1,380	1,800	3,280	688	1,080	162	458	71	49
8	-------	155	121	438	2,500	1,350	500	830	171	378	61	214
9	-------	138	116	398	1,530	1,080	418	635	208	319	55	345
10	-------	135	101	565	830	830	458	565	239	242	56	204
11	-------	126	111	1,370	565	688	635	500	191	187	61	135
12	-------	108	113	588	438	660	1,540	479	162	162	59	92
13	-------	116	113	418	319	688	1,220	565	146	140	64	77
14	-------	126	113	319	282	1,450	715	521	132	146	66	257
15	-------	121	300	310	278	1,780	610	500	135	113	66	140
16	-------	108	543	275	358	1,220	9,200	438	140	118	69	158
17	-------	116	338	264	358	890	14,100	378	187	121	64	126
18	-------	113	300	239	418	635	3,380	338	149	108	58	129
19	-------	113	353	240	500	565	1,780	844	129	280	58	129
20	-------	165	253	280	378	521	1,290	1,050	121	211	53	108
21	-------	225	204	260	194	479	1,080	543	432	118	59	85
22	-------	177	146	200	201	438	1,150	500	3,100	85	59	85
23	132	143	126	170	297	488	1,010	398	1,070	87	58	73
24	129	129	116	160	275	418	715	338	2,310	101	50	59
25	124	121	132	190	268	398	660	438	4,430	96	48	58
26	120	104	118	220	1,640	358	1,920	398	5,000	106	58	56
27	120	118	132	170	4,800	358	950	304	986	92	53	58
28	118	116	129	150	5,890	319	688	275	769	83	52	56
29	106	108	135	140	-------	293	688	623	1,560	94	56	58
30	118	118	111	120	-------	271	610	645	565	113	62	71
31	124	-------	106	120	-------	268	-------	398	-------	94	58	-------

Daily discharge, in second-feet, of West Conewago Creek near Manchester, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	75	25	184	1,110	231	900	340	269	88	120	18	19
2	4,640	25	211	930	297	700	320	293	84	191	14	62
3	7,290	532	204	1,140	322	650	280	273	73	337	11	28
4	1,350	1,970	211	960	420	550	280	257	84	158	10	32
5	728	782	241	600	1,440	500	277	241	68	96	10	35
6	496	518	234	478	2,570	487	406	234	73	77	5	26
7	389	428	238	464	1,270	492	4,220	222	77	75	3	21
8	326	372	310	500	930	6,960	1,480	211	88	64	2	20
9	261	330	464	514	700	2,760	840	204	79	63	3	17
10	222	301	381	478	550	1,360	650	187	129	63	5	13
11	194	280	301	420	550	1,110	550	168	496	56	9	12
12	177	260	226	364	600	1,320	510	146	230	59	9	10
13	162	260	261	420	1,090	930	464	143	143	56	13	20
14	149	260	368	666	2,340	728	442	155	116	53	10	20
15	142	280	575	1,640	1,430	625	411	260	94	45	12	11
16	138	210	532	960	850	575	389	550	70	43	15	17
17	129	300	415	625	700	541	415	269	241	42	18	91
18	116	3,540	394	478	600	532	451	184	1,600	37	16	197
19	104	3,130	720	351	650	904	433	158	848	42	25	95
20	104	1,080	675	320	700	802	398	155	549	30	22	50
21	96	782	433	300	700	546	347	149	234	32	15	37
22	686	625	289	280	650	469	322	146	168	30	15	30
23	2,280	536	280	280	600	411	310	129	126	48	20	26
24	810	487	280	280	600	402	293	208	113	43	17	16
25	482	460	280	280	1,130	442	273	251	116	38	17	26
26	372	420	300	300	1,380	870	269	155	235	36	21	23
27	94	389	351	314	2,160	650	261	135	180	26	29	20
28	17	372	372	338	1,220	482	253	132	140	22	14	15
29	7	338	810	338	-------	424	257	118	124	30	9	25
30	5	262	1,020	330	-------	400	257	96	77	30	14	21
31	10	-------	819	277	-------	380	-------	88	-------	24	11	-------
1930-31												
1	25	10	28	73	53	70	780	109	76	91	38	89
2	26	10	23	56	52	66	4,270	106	189	87	29	74
3	26	16	16	56	33	203	1,140	106	276	74	29	153
4	20	17	25	49	49	141	745	104	138	74	21	484
5	12	14	26	49	40	104	614	116	98	102	16	181
6	10	71	30	899	43	89	456	111	78	98	20	120
7	17	15	32	688	35	80	556	109	72	109	22	85
8	15	16	35	194	40	98	1,400	210	153	367	18	52
9	10	13	29	111	58	781	776	418	224	194	16	50
10	11	7	26	126	90	369	535	296	147	292	28	49
11	110	16	28	85	256	197	438	308	102	472	85	42
12	9	14	33	76	184	132	358	362	87	240	345	37
13	11	12	33	54	159	106	283	267	76	171	144	25
14	16	20	30	52	138	91	244	279	68	133	102	25
15	13	18	37	47	174	87	211	304	60	104	70	22
16	11	18	23	43	110	78	187	316	833	95	47	17
17	7	25	22	42	104	116	168	222	683	87	50	21
18	8	23	23	38	113	290	156	174	345	70	33	20
19	8	23	20	247	168	376	147	159	204	45	26	21
20	5	22	22	530	271	337	130	147	156	40	26	23
21	11	22	15	292	232	337	126	159	126	33	30	66
22	14	22	25	101	184	222	118	118	98	43	28	52
23	11	23	21	118	147	178	130	171	80	62	23	40
24	12	20	20	91	126	162	153	249	1,370	68	33	31
25	11	25	16	68	104	147	159	207	528	62	26	29
26	11	23	29	60	93	150	133	153	218	54	49	30
27	5	28	165	52	72	156	136	130	159	40	52	33
28	17	25	644	66	76	149	168	113	136	30	38	42
29	16	28	253	64	-------	3,430	141	100	111	23	33	25
30	11	13	138	50	-------	1,330	116	85	87	37	128	26
31	10	-------	82	66	-------	614	-------	74	-------	32	133	-------

Daily discharge, in second-feet, of West Conewago Creek near Manchester, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	26		21	70	200	108	1,780	820	149	58	28	
2	20		26	856	128	97	1,040	1,660	139	57	23	
3	22	12	32	792	106	91	818	596	124	52	19	100
4	21		32	337	160	85	641	394	121	46	25	
5	25	10	50	211	1,410	155	532	318	110	42	25	
6	26	11	47	279	678	432	496	328	93	42	23	20
7	20	8	58	1,210	422	582	447	340	126	56	13	
8	34	7	35	748	353	742	389	273	140	62	12	18
9	57	11	29	560	289	452	380	269	103	57	12	17
10	30	24	49	530	223	323		546	85	47	8.4	17
11	22	20	54	331	209	290		2,060	78	44	9.4	11
12	20	25	72	240	206	202		3,760	71	35	9.8	13
13	22	26	78	207	192	180	500	5,280	78	34	7.9	19
14		24	113	207	161	170		2,430	143	42	6.8	14
15		18	109	214	129	165		1,410	158	35	12	12
16	30	9	98	168	124	162		1,000	328		13	14
17		18	87	144	126	183	380	769	484	35	11	11
18		16	72	126	164	840	353	602	174		12	9.1
19		14	56	116	206	1,670	327	496			13	6.4
20		15	43	120	149	1,620	297	432			14	10
21		17	35	93	119	968	269	389	110		9.6	11
22		13	26	87	105	1,490	242	358		100	13	10
23		16	30	91	105	3,130	220	314			11	8.9
24		17	35	98	105	1,150	199	277		347	7.3	7.3
25	12	14	37	138	95	818	192	249		151	5.8	6.6
26		8	35	136	91	658	199	231	86	76	5.9	4.7
27		11	23	111	81	613	196	213	78	56	5.8	8.4
28		14	40	109	93	7,430	173	196	62	48		8.5
29		9	33	130	93	3,720	158	176	64	36	15	9.5
30		19	32	126	-------	1,460	147	167	62	31		11
31		-------	37	242	-------	1,180	-------	155	-------	23		-------

Note.—Discharge affected by ice, Dec. 23-26, 1929, Jan. 25, 26, Feb. 9-12, 1930, Mar. 12-17, 1932. Control obstructed Oct. 5-21, 1929, July 28-31, 1930, July 17 to Sept. 30, 1931. Discharge estimated for periods of missing gage heights, Oct. 26, 27, Nov. 5, 1928, Jan. 2, 6, 7, 19-31, Feb. 1-5, 7, 8, 26-28, Mar. 1, 5-8, 14, Apr. 5, 6, 12, 13, 16, 18, 26, May 2-4, 19, 20, 29, 30, June 21-29, July 5, 19, Sept. 8, 9, 14, Nov. 11-17, 1929. Jan. 20-24, Feb. 16-22, Mar. 2-5, 30, 31, Apr. 1-4, 1930, Oct. 14 to Nov. 4, Dec. 1-5, 1931, Jan. 5-8, Apr. 10-16, June 19-25, July 16-23, Aug. 28 to Sept. 7, 1932.

Monthly discharge, in second-feet, of West Conewago Creek near Manchester, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October, 23-31	132	106	121	0.237	0.08
November	390	104	146	.286	.32
December	543	101	190	.372	.43
January	1,690	120	413	.808	.93
February	5,890	110	886	1.73	1.80
March	10,400	268	1,410	2.76	3.18
April	14,100	218	1,660	3.25	3.63
May	11,200	275	1,010	1.98	2.28
June	5,000	121	793	1.55	1.73
July	588	83	208	.407	.47
August	89	48	62.0	.121	.14
September	345	36	103	.202	.23
1929–30					
October	7,290	5	709	1.39	1.60
November	3,540	25	654	1.28	1.43
December	1,020	184	399	.781	.90
January	1,640	277	540	1.06	1.22
February	2,570	281	953	1.86	1.94
March	6,960	380	932	1.82	2.10
April	4,220	253	547	1.07	1.19
May	550	88	200	.391	.45
June	1,600	68	225	.440	.49
July	337	22	66.6	.130	.15
August	29	2	13.3	.026	.03
September	197	10	34.5	.068	.08
The year	7,290	2	437	.855	11.58
1930–31					
October	26	5	12.9	.025	.03
November	28	7	18.3	.036	.04
December	644	15	62.8	.123	.14
January	899	38	147	.288	.33
February	271	33	114	.223	.23
March	3,430	66	345	.675	.78
April	4,270	113	499	.976	1.09
May	418	74	187	.366	.42
June	1,370	60	233	.456	.57
July	472	23	111	.217	.25
August	345	16	56.1	.110	.13
September	484	17	65.5	.128	.14
The year	4,270	5	154	.301	4.09
1931–32					
October	57	-------	22.5	.044	.05
November	26	7	14.7	.029	.03
December	113	21	49.2	.096	.11
January	1,210	70	285	.558	.64
February	1,410	81	225	.440	.47
March	7,450	85	1,010	1.98	2.28
April	1,780	147	446	.873	.97
May	5,280	155	855	1.68	1.92
June	484	-------	128	.250	.28
July	-------	23	63.0	.123	.14
August	28	5.8	13.4	.026	.03
September	100	4.7	23.9	.047	.05
The year	7,430	4.7	262	.513	6.97

CODORUS CREEK AT SPRING GROVE

LOCATION.—Water-stage recorder at highway bridge at Spring Grove, York County. Zero of gage is 436.22 feet above mean sea level. Chain gage at same site and datum used prior to Jan. 17, 1930.

DRAINAGE AREA.—74.3 square miles.

RECORDS AVAILABLE.—April, 1929, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1929, 730 second-feet June 22 (gage height, 4.35 feet); minimum, 12 second-feet July 31 (gage height, 1.04 feet).

Maximum discharge during year ending Sept. 30, 1930, about 1,440 second-feet Oct. 2 (gage height, 6.48 feet); minimum, 7.4 second-feet Sept. 21 (gage height, 0.78 foot).

Maximum discharge during year ending Sept. 30, 1931, 685 second-feet Apr. 1 (gage height, 4.27 feet); minimum, 5.9 second-feet Sept. 25 (gage height, 0.73 foot).

Maximum discharge during year ending Sept. 30, 1932, about 1,400 second-feet June 16 (gage height, 6.38 feet); minimum, probably less than 2.2 second-feet in September.

REMARKS.—Records fair. Records, Oct. 1, 1931, to Mar. 22, 1932, Sept. 3-30, 1932, not computed owing to extremely poor and scattered gage-height record. Regulation at low stages from operations at paper mill above station. Well and shelter for water-stage recorder, and services of observer furnished by Glatfelter Paper Co., Spring Grove, Pa.

Daily discharge, in second-feet, 1929-1932.

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1929							1929						
1	-------	111	84	54	20	34	16	-------	81	48	25	21	20
2	-------	121	67	65	20	36	17	-------	71	41	25	20	53
3	-------	343	57	48	18	25	18	-------	75	36	24	25	29
4	-------	198	54	43	29	25	19	-------	92	32	27	38	18
5	-------	162	51	44	24	32	20	-------	105	48	22	22	20
6	-------	146	53	47	21	40	21	-------	105	61	25	20	17
7	-------	146	43	42	22	25	22	-------	82	444	27	22	18
8	-------	118	711	36	22	41	23	-------	75	82	27	28	20
9	-------	111	64	32	25	43	24	-------	67	171	25	25	16
10	-------	100	53	32	21	20	25	189	90	105	29	26	17
11	-------	99	48	29	32	19	26	171	69	116	27	30	19
12	-------	93	38	29	33	14	27	146	62	78	25	20	19
13	-------	99	42	33	21	14	28	162	62	121	21	20	21
14	-------	99	36	28	23	25	29	137	68	78	35	23	25
15	-------	90	52	32	42	38	30	121	129	58	25	28	48
							31	-------	90	-------	16	25	-------

Daily discharge, in second-feet, of Codorus Creek at Spring Grove, 1929-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	57	42	40	86	58	90	67	56	35	22	25	37
2	896	43	40	86	58	90	66	58	34	31	18	48
3	193	150	44	58	60	79	63	52	30	29	116	50
4	146	134	41	71	133	75	64	49	29	26	22	44
5	84	84	48	66	398	72	59	49	29	25	29	41
6	63	71	51	62	215	73	168	46	30	25	27	36
7	53	63	56	66	156	82	533	47	35	24	14	21
8	46	61	54	66	140	457	187	44	36	21	9.6	38
9	44	56	51	62	119	222	147	46	43	21	9.2	44
10	36	49	47	57	121	169	328	42	66	23	9.2	44
11	36	50	44	49	104	187	118	41	49	25	15	43
12	35	50	44	55	96	166	110	41	35	23	19	41
13	36	48	44	64	180	132	102	40	32	113	20	98
14	34	49	66	137	212	116	98	45	31	28	22	153
15	32	43	56	116	151	105	90	62	30	24	24	19
16	34	47	49	90	125	100	86	50	29	25	18	16
17	35	65	44	73	115	98	93	42	71	27	12	20
18	33	320	51	74	118	105	92	42	158	29	26	16
19	31	141	53	69	129	161	86	48	108	17	34	18
20	32	87	40	69	118	100	79	47	36	11	36	15
21	33	71	22	75	105	92	73	40	29	25	36	9.5
22	186	66	30	72	98	84	73	38	25	29	36	22
23	117	66	37	64	94	79	68	36	22	33	26	27
24	63	62	40	59	96	80	66	40	23	33	16	28
25	52	58	40	60	98	102	64	49	55	23	30	27
26	47	55	44	56	114	118	61	36	41	17	38	25
27	40	55	43	58	126	84	59	33	54	10	40	19
28	57	56	55	61	98	76	58	36	23	21	48	8.8
29	36	49	90	59	-------	73	58	37	22	34	42	16
30	41	38	90	56	-------	72	55	36	22	33	33	22
31	52	-------	87	50	-------	67	-------	35	-------	25	16	-------
1930-31												
1	22	22	69	21	25	63	262	31	61	18	23	15
2	22	11	56	18	27	55	225	38	66	17	20	24
3	21	24	47	19	26	33	121	40	37	18	29	106
4	16	40	39	24	27	29	96	40	28	36	30	26
5	7.1	40	40	71	28	27	75	35	25	26	30	18
6	12	38	42	239	29	25	66	33	24	25	29	16
7	18	37	58	45	29	24	128	36	69	25	22	15
8	19	33	70	24	34	69	132	86	87	23	14	13
9	19	20	62	21	34	52	90	56	28	31	14	12
10	20	40	47	22	63	32	77	43	26	70	23	14
11	17		43	20	29	24	70	60	27	45	69	18
12	8.0		46	22	27	26	58	46	25	18	25	17
13	13		36	21	32	26	51	50	25	17	21	14
14	20	45	39	20	34	27	46	51	24	14	13	14
15	20		52	20	26	28	44	51	27	23	16	21
16	21		42	20	27	37	40	49	133	20	14	51
17	21	56	39	16	29	39	40	42	59	19	14	21
18	16	55	39	21	47	64	39	40	22	28	14	35
19	8.0	59	39	264	49	79	36	39	20	23	16	18
20	13	47	37	76	44	68	35	38	18	24	16	13
21	22	43	39	30	41	57	31	39	17	25	15	16
22	23	47	55	20	38	48	35	40	20	26	14	16
23	23	50	52	24	36	43	55	58	85	26	60	16
24	23	61	46	23	29	34	39	36	55	25	41	14
25	19	59	19	22	28	34	36	32	20	31	20	13
26	8.4	48	57	24	29	34	36	28	20	32	23	31
27	13	47	271	25	27	31	46	27	23	31	18	24
28	18	43	47	25	26	59	35	27	18	32	19	21
29	21	37	23	26	-------	312	32	27	19	32	139	17
30	24	22	19	26	-------	108	31	26	16	36	26	18
31	26	-------	16	26	-------	72	-------	34	-------	32	18	-------

Daily discharge, in second-feet, of Codorus Creek at Spring Grove, 1929-1932—Continued.

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1932								1932							
1	------	178	228	36	25	14	13	16	------	63	162	420	16	13	------
2	------	129	102	34	26	14	12	17	------	57	135	56	15	9.6	------
3	------	111	67	31	23	14	------	18	------	56	115	44	15	33	------
4	------	93	58	29	26	17	------	19	------	51	99	38	16	36	------
5	------	86	52	31	31	14	------	20	------	48	93	37	19	14	------
6	------	79	56	31	27	14	------	21	------	48	79	35	26	12	------
7	------	72	51	28	29	11	------	22	------	47	94	50	48	14	------
8	------	67	46	24	28	12	------	23	141	46	67	31	74	12	------
9	------	94	104	24	22		------	24	107	41	61	26	19	12	------
10	------	152	70	24	18		------	25	86	44	53	24	18	12	------
11	------	129	225	24	19		------	26	79	44	49	22	16	12	------
12	------	102	252	32	18	13	------	27	81	38	48	27	16	12	------
13	------	83	658	38	18		------	28	827	37	49	28	16	11	------
14	------	76	306	33	17		------	29	282	36	42	26	14	12	------
15	------	68	212	181	16		------	30	184	35	40	22	13	17	------
								31	188	------	37	------	11	29	------

Note.—Discharge estimated for periods of no gage-height record, Aug. 25, 1929, Nov. 11–16, 1930, Aug. 9–16, 1932.

Monthly discharge, in second-feet, of Codorus Creek at Spring Grove, 1929-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929					
April 25–30	189	121	154	2.07	0.46
May	343	62	108	1.45	1.67
June	444	32	79.1	1.06	1.18
July	65	16	32.2	.433	.50
August	42	18	24.7	.332	.38
September	48	14	26.7	.359	.40
1929–30					
October	896	31	85.8	1.15	1.33
November	320	38	74.5	1.00	1.12
December	90	22	49.5	.666	.77
January	137	49	70.4	.948	1.09
February	398	53	136	1.75	1.82
March	457	67	116	1.56	1.80
April	533	55	109	1.47	1.64
May	62	33	44.0	.592	.68
June	158	22	42.1	.567	.63
July	113	11	27.5	.370	.43
August	116	9.2	27.9	.376	.43
September	153	8.8	34.9	.470	.52
The year	896	8.8	67.2	.904	12.26
1930–31					
October	26	7.1	17.9	.241	.28
November	61	11	41.6	.560	.62
December	271	16	51.2	.689	.79
January	264	16	41.1	.553	.64
February	84	25	34.6	.466	.49
March	312	24	53.5	.720	.83
April	262	31	70.2	.945	1.05
May	86	26	41.2	.555	.64
June	133	16	37.5	.505	.56
July	70	14	27.4	.369	.43
August	139	13	27.3	.367	.42
September	106	12	22.2	.299	.33
The year	312	7.1	38.8	.522	7.08
1932					
March 23–31	827	79	219	2.95	.99
April	178	35	73.7	.992	1.11
May	658	37	120	1.62	1.87
June	420	22	49.5	.666	.74
July	74	11	22.4	.301	.35
August	36	9.6	14.9	.201	.23
September 1–2	13	12	12.5	.168	.01

CODORUS CREEK AT YORK

LOCATION.—Chain gage at South Penn Street Bridge at York, York County. Zero of gage is 351.86 feet above mean sea level.

DRAINAGE AREA.—229 square miles (revised).

RECORDS AVAILABLE.—October, 1915, to August, 1923; August, 1926, to September, 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 8.05 feet (determined from hydrograph) Apr. 16; minimum, 1.25 feet (determined from hydrograph) Sept. 13.

Maximum stage during year ending Sept. 30, 1930, 11.29 feet Oct. 3; minimum, 1.01 feet Aug. 9.

Maximum stage during year ending Sept. 30, 1931, 5.20 feet (determined from hydrograph) Jan. 19; minimum, 1.14 feet Oct. 22.

Maximum stage during year ending Sept. 30, 1932, 7.47 feet Mar. 28; minimum, 1.13 feet Oct. 25, 27, Sept. 23.

1915-1923, 1926-1932: Maximum stage, 15.9 feet Mar. 5, 1920; minimum, 0.32 foot Oct. 4, Nov. 29, Dec. 2, 1922.

REMARKS.—Gage-height records good. Owing to variable operations at Loucks Mill, it has not been possible to obtain a rating for the determination of discharge. Gage-height observer paid by Schmidt and Ault Paper Co., York, Pa. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet
1931			1932		
Sept. 9	1.44	39.5	June 28	1.85	93.0
9	1.52	28.0			

Daily mean gage height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	2.18	1.93	2.47	2.01	1.86	2.40	2.40	------	2.36	1.91	1.51	1.37
2	2.02	1.96	2.00	------	1.80	3.40	------	3.18	1.97	2.27	1.83	1.39
3	------	2.04	1.86	1.86	1.82	3.15	------	4.95	2.16	1.79	1.90	1.55
4	------	2.21	1.85	1.82	1.82	4.55	2.14	------	1.94	------	1.64	1.21
5	2.02	2.20	------	2.40	1.78	5.90	2.90	2.80	1.92	------	1.76	1.37
6	2.32	2.07	1.66	2.78	1.84	5.40	2.62	3.02	1.98	------	1.58	1.90
7	1.99	------	1.66	2.15	------	4.30	2.24	2.95	1.92	1.80	1.58	1.60
8	1.90	1.99	1.76	1.77	2.64	3.35	2.08	2.66	------	1.80	------	------
9	------	1.95	1.71	------	2.12	3.20	2.15	2.27	2.12	1.76	1.62	3.32
10	------	2.02	1.87	3.10	2.11	2.84	------	------	2.00	1.70	1.57	1.72
11	------	2.04	1.74	2.66	1.90	2.82	2.16	2.30	1.90	1.66	1.66	1.68
12	1.94	2.11	1.77	2.34	1.80	2.76	2.58	2.30	1.90	1.62	------	1.47
13	1.94	2.08	1.75	2.08	1.70	------	2.29	2.84	1.84	1.72	------	1.44
14	2.03	------	1.94	1.72	1.74	3.00	2.22	2.42	1.82	------	------	1.97
15	1.80	1.94	2.40	2.08	1.68	2.84	2.22	2.35	------	1.88	------	2.02
16	1.85	1.93	1.88	------	1.70	2.72	5.75	------	1.95	1.62	------	1.62
17	------	1.84	1.90	1.94	1.71	2.56	------	------	1.90	1.60	1.40	1.70
18	1.85	------	2.02	2.02	1.76	2.44	5.20	------	1.76	1.72	1.46	1.67
19	2.04	2.10	------	2.12	1.86	2.45	4.28	2.94	1.67	2.17	1.91	1.58
20	1.86	2.10	1.80	2.16	1.82	------	3.85	2.66	2.43	1.85	1.63	1.60
21	1.82	------	1.74	2.02	1.72	2.22	3.72	2.56	1.95	1.51	1.47	1.40
22	1.87	1.95	1.58	1.92	1.72	2.26	3.90	2.36	------	1.55	1.51	------
23	1.84	1.99	1.65	------	1.70	2.28	3.40	2.26	2.11	1.57	1.65	1.49
24	------	1.80	------	2.02	1.64	2.18	------	2.20	2.12	1.59	1.45	1.53
25	1.94	1.98	1.60	2.12	1.95	2.18	3.00	2.36	2.75	1.75	1.45	1.39
26	1.85	2.08	1.83	1.90	3.60	2.20	------	2.15	2.97	1.85	1.47	------
27	1.79	2.00	1.72	1.85	6.45	2.16	2.90	2.08	2.02	1.78	------	1.33
28	1.92	------	1.72	2.06	4.40	2.12	2.73	2.26	1.91	1.54	1.25	1.41
29	2.01	1.61	1.59	------	------	2.04	2.82	------	------	1.61	1.29	1.35
30	1.92	2.32	1.71	1.88	------	2.00	2.60	1.94	------	1.93	------	1.87
31	------	------	1.88	1.82	------	2.01	------	2.20	------	1.99	------	------

Daily mean gage height, in feet, of Codorus Creek at York, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	2.96	2.03	1.76	2.25	1.95	2.34	-------	1.95	1.66	1.48	1.33	1.22
2	7.29	2.01	1.87	-------	2.02	2.36	2.12	1.89	1.50	1.73	1.41	1.97
3	7.36	-------	1.87	2.27	2.11	2.26	2.03	1.99	1.57	1.55	1.24	1.66
4	3.21	3.05	1.85	2.07	2.44	-------	2.05	1.81	1.43	1.37	1.21	1.31
5	2.52	2.48	-------	2.05	3.80	2.29	2.00	1.85	1.45	-------	1.05	1.20
6	-------	2.28	1.85	-------	2.65	2.21	2.44	-------	1.61	1.49	1.29	1.19
7	2.16	-------	2.04	2.05	2.08	2.38	5.16	1.83	1.47	1.55	1.28	1.21
8	2.04	2.23	2.14	2.02	2.73	4.76	3.31	1.87	1.48	1.71	1.12	1.31
9	1.96	2.24	2.08	-------	2.68	3.31	2.91	1.71	1.55	1.57	1.01	1.41
10	1.93	-------	1.90	2.01	2.62	3.11	2.74	1.68	1.87	1.53	-------	1.18
11	1.90	2.12	1.90	2.02	-------	-------	2.66	1.63	1.77	1.58	1.18	1.20
12	1.95	2.07	-------	2.02	2.38	2.64	2.60	1.70	1.64	1.54	1.19	1.24
13	1.83	2.02	1.86	2.19	2.71	2.72	2.47	-------	1.43	1.52	1.27	1.64
14	1.86	-------	2.08	2.30	3.32	2.60	2.42	1.82	1.36	-------	1.24	2.66
15	1.94	2.10	1.97	2.6.	2.90	2.50	-------	2.12	1.35	1.56	1.48	1.67
16	1.73	2.00	1.94	2.47	2.64	2.34	2.32	1.90	1.72	1.51	1.33	1.46
17	-------	2.08	1.76	2.26	2.50	2.48	2.40	1.76	2.24	1.41	1.30	1.37
18	1.66	3.13	1.89	2.38	-------	-------	2.32	1.73	3.60	1.50	1.32	1.38
18	1.66	3.13	1.89	2.38	-------	-------	2.32	1.73	3.09	1.50	1.32	1.38
20	-------	2.30	1.94	2.15	2.64	2.48	2.20	-------	1.82	1.32	1.44	1.38
21	1.75	-------	1.95	2.36	2.46	2.40	2.16	1.74	1.85	1.47	1.41	1.33
22	2.89	2.16	1.54	2.29	2.40	2.29	-------	1.74	1.67	1.49	1.39	1.36
23	3.74	2.09	1.97	-------	-------	2.22	2.13	1.74	1.49	1.36	1.08	1.44
24	2.44	2.07	1.75	2.01	2.44	2.23	2.06	1.69	1.66	1.38	-------	1.33
25	2.24	2.09	1.77	2.05	-------	-------	2.06	2.06	2.49	1.47	1.34	1.48
26	2.15	2.07	-------	1.92	2.45	2.65	1.96	1.67	1.81	1.48	1.36	1.36
27	1.99	2.06	1.85	2.17	2.77	2.26	1.95	-------	2.14	1.34	1.32	1.30
28	2.01	2.00	2.21	2.11	2.47	2.11	1.99	1.75	1.77	1.38	1.46	1.19
29	1.94	1.93	2.47	2.14	-------	2.15	-------	1.66	1.46	1.33	1.36	1.18
30	1.95	1.67	2.33	-------	-------	2.17	1.95	1.76	1.65	1.34	1.24	1.38
31	-------	-------	2.29	1.85	-------	2.14	-------	1.64	-------	1.34	1.25	-------
1930-31												
1	1.29	1.40	1.52	1.44	1.37	1.57	2.58	1.58	2.19	1.31	1.24	1.33
2	1.27	1.25	1.46	1.36	1.40	1.94	3.35	1.56	2.03	1.36	1.19	1.35
3	1.29	1.39	1.37	1.40	1.40	1.64	2.53	1.64	1.66	1.27	1.16	2.68
4	1.28	1.41	1.41	1.38	1.32	1.53	2.36	1.62	1.61	1.38	1.48	1.75
5	1.30	1.46	1.41	1.76	1.31	1.44	2.14	1.35	2.04	1.51	1.28	1.52
6	1.29	1.45	1.43	3.66	1.31	1.40	2.04	1.53	1.34	1.41	1.21	1.34
7	1.31	1.23	1.49	2.08	1.45	1.44	2.38	1.77	1.39	1.67	1.21	1.28
8	1.31	1.27	1.55	1.56	1.35	1.76	2.96	2.35	2.24	1.55	1.32	1.43
9	1.26	1.25	1.63	1.59	1.81	1.98	2.34	1.80	1.73	1.45	1.24	1.32
10	1.41	1.37	1.45	-------	1.89	1.62	2.20	1.70	1.62	2.21	1.24	1.29
11	1.16	1.37	1.45	1.37	1.57	1.58	2.16	2.07	1.60	1.92	2.19	1.27
12	1.18	1.37	1.49	1.55	1.39	1.48	1.98	1.91	1.56	1.55	1.66	1.27
13	1.31	1.41	1.45	1.49	1.63	1.40	1.84	1.91	1.44	1.43	1.43	1.32
14	1.36	1.41	1.42	1.28	1.63	1.42	1.84	1.66	1.53	1.35	1.41	1.25
15	1.34	1.33	1.39	1.28	1.47	1.47	1.83	1.92	1.60	1.33	1.29	1.78
16	1.27	1.48	1.33	1.32	1.45	1.62	1.74	1.69	2.25	1.68	1.30	1.42
17	1.26	1.49	1.31	1.47	1.23	1.78	1.74	1.53	2.37	1.45	1.34	1.30
18	1.26	1.82	1.43	1.30	1.75	1.85	1.76	1.81	1.71	1.33	1.26	1.28
19	1.27	1.58	1.38	3.57	1.85	2.17	1.69	1.61	1.60	1.26	1.25	1.37
20	1.33	1.45	1.30	2.90	1.67	1.98	1.74	1.60	1.39	1.23	1.23	1.49
21	1.35	1.36	1.31	1.23	1.64	1.86	1.62	1.69	1.39	1.33	1.29	1.34
22	1.21	1.42	1.38	1.36	1.60	1.80	1.70	1.71	1.40	1.34	1.30	1.32
23	1.33	1.27	1.38	1.38	1.57	1.76	2.03	1.72	1.64	1.23	1.82	1.32
24	1.29	1.40	1.38	1.40	1.48	1.50	1.78	1.65	2.28	1.28	2.11	1.26
25	1.44	1.50	1.20	1.44	1.48	1.66	1.70	1.65	1.68	1.26	1.50	1.24
26	1.26	1.47	1.79	1.45	1.38	1.62	1.73	1.57	1.41	1.25	1.47	1.46
27	1.20	1.34	4.08	.50	1.40	1.58	1.78	1.50	1.47	1.21	1.37	1.58
28	1.36	1.33	2.22	1.57	-------	2.15	1.66	1.56	1.43	1.28	1.36	1.40
29	1.42	1.32	1.46	1.40	-------	4.15	1.60	1.42	1.77	1.28	2.41	1.32
30	1.31	1.38	1.54	1.36	-------	2.60	1.60	1.42	1.52	1.30	1.70	1.37
31	1.44	-------	1.64	1.50	-------	2.10	-------	1.47	-------	1.80	1.56	-------

Daily mean gage height, in feet, of Codorus Creek at York, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1.23	1.29	1.48	1.91	1.27	1.68	3.50	3.64	1.91	1.60	1.48	1.48
2	1.46	1.27	1.48	2.71	1.55	1.58	3.13	2.66	1.88	1.72	1.42	1.34
3	1.24	1.31	2.00	2.03	1.45	1.58	-------	2.24	1.83	1.57	1.38	1.42
4	1.29	1.25	-------	1.60	1.77	1.86	2.80	2.30	1.93	1.64	1.52	1.42
5	1.22	1.26	1.44	1.56	2.33	2.22	2.71	2.30	1.94	1.79	1.46	1.42
6	1.30	1.33	1.37	1.78	1.92	1.97	2.67	2.12	1.83	1.65	1.46	1.78
7	1.46	-------	1.44	2.26	1.82	1.90	2.53	1.94	1.60	1.69	1.40	1.60
8	1.50	1.18	-------	2.06	1.73	2.14	2.67	2.10	1.65	1.69	2.56	1.50
9	1.39	1.32	-------	2.38	1.59	1.86	2.71	2.84	-------	-------	1.46	1.32
10	1.40	1.29	1.93	2.07	1.59	1.72	3.24	2.09	1.75	1.54	1.40	1.23
11	1.27	1.33	1.79	1.85	1.62	1.76	2.95	2.89	1.79	1.51	3.05	1.26
12	1.21	1.31	-------	1.64	1.64	1.81	2.67	3.12	1.98	1.56	1.50	1.23
13	1.19	1.30	1.68	1.72	1.64	1.98	2.57	5.54	2.05	1.44	1.50	1.28
14	1.31	1.22	1.70	1.72	1.49	1.90	2.49	4.09	1.86	1.42	1.41	1.28
15	1.25	1.24	1.43	1.63	1.55	1.68	2.40	3.49	1.90	1.46	1.28	1.28
16	1.32	1.30	1.43	1.40	1.41	1.76	2.39	3.12	3.27	1.42	1.42	1.44
17	1.38	1.30	1.50	1.55	1.55	2.18	2.34	2.98	2.05	1.44	1.36	1.22
18	1.30	1.41	1.45	1.62	1.64	2.50	2.25	2.80	2.50	1.40	1.50	1.24
19	1.18	1.40	1.47	1.55	1.50	2.90	2.17	2.65	1.93	1.42	2.15	1.38
20	1.27	1.40	1.46	1.56	1.59	2.97	2.13	2.61	1.80	1.33	1.50	1.36
21	1.33	1.20	1.49	1.52	1.70	2.68	2.06	2.47	1.86	1.46	1.51	1.30
22	1.26	1.19	1.57	1.52	1.64	3.21	2.12	-------	2.28	2.52	1.52	1.28
23	1.24	1.40	1.55	1.56	1.64	2.76	2.12	2.29	1.68	2.20	-------	1.18
24	1.33	1.48	1.51	1.62	1.45	2.76	2.07	2.29	1.68	1.65	1.34	1.23
25	1.17	1.35	1.45	1.42	1.65	1.97	2.06	2.29	1.78	1.56	1.36	1.40
26	1.77	1.29	1.45	1.42	1.64	2.44	2.06	2.15	1.65	1.46	1.34	1.23
27	1.15	1.49	1.35	1.51	1.69	-------	1.98	2.11	1.64	1.50	1.28	1.30
28	1.25	1.40	1.43	1.42	1.78	7.09	1.98	2.19	1.84	1.56	1.34	1.42
29	1.27	1.32	1.38	1.51	1.54	4.15	1.84	2.18	1.72	1.48	1.30	1.39
30	1.41	1.66	1.50	1.73	-------	3.55	1.94	2.16	1.72	1.50	1.85	1.32
31	1.35	-------	1.49	1.64	-------	3.35	-------	2.01	-------	1.45	1.66	-------

SUSQUEHANNA BASIN—STATION NO. 47

SOUTH BRANCH OF CODORUS CREEK NEAR YORK

LOCATION.—Water-stage recorder just below dam at pumping station of York Water Co., half a mile above confluence with Codorus Creek, and 3 miles southwest of York, York County. Zero of gage is 373.03 feet above mean sea level.

DRAINAGE AREA.—117 square miles (revised).

RECORDS AVAILABLE.—May, 1925, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 3,320 second-feet Feb. 26 (gage height, 8.12 feet); minimum, 7.5 second-feet Sept. 5 (gage height, 0.15 foot).

Maximum discharge during year ending Sept. 30, 1930, not determined; maximum gage height, 9.16 feet, from backwater Oct. 2; minimum discharge, 8 second-feet Sept. 5 (gage height, 0.15 foot).

Maximum discharge during year ending Sept. 30, 1931, 910 second-feet Dec. 27 (gage height, 5.06 feet); minimum, 9.2 second-feet July 2 (gage height, 0.11 foot).

Maximum discharge during year ending Sept. 30, 1932, 1,760 second-feet Mar. 28 (gage height, 6.35 feet); minimum, 4.2 second-feet Sept. 24 (gage height, 0.06 foot).

1925-1932: Maximum discharge, not determined; maximum gage height, that of Oct 2, 1929; minimum discharge, that of Sept. 24, 1932.

REMARKS.—Records fair except those for low stages and for estimated periods, which are poor. Municipal water supply for York diverted above gage not included in records except in part of monthly table. Diversion records, water-stage recorder, well, and shelter, furnished by the York Water Company, York, Pa.

Daily discharge, in second-feet, of South Branch of Codorus Creek near York, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	97	60	114	113	50	356	99	184	103	68	26	21
2	87	61	67	134	50	344	91	208	95	80	69	21
3	84	59	59	66	50	353	89	576	87	63	49	18
4	79	114	56	59	52	472	94	211	84	59	28	14
5	91	93	67	56	54	686	271	205	83	55	27	19
6	154	70	52	277	61	788	174	252	87	65	22	62
7	90	63	42	123	772	583	127	231	80	60	30	52
8	81	64	52	67	220	389	115	192	150	50	30	194
9	81	60	51	77	120	322	108	108	118	48	31	96
10	79	59	49	282	107	292	130	135	89	46	29	63
11	74	61	50	162	91	282	122	145	82	43	38	63
12	68	59	45	118	74	252	169	145	77	44	60	33
13	72	58	51	90	68	246	132	153	73	65	23	28
14	77	57	65	75	70	272	130	152	73	38	29	62
15	71	57	118	70	68	238	123	145	92	50	74	153
16	70	54	74	68	67	214	1,280	128	96	42	39	65
17	71	58	65	75	66	200	1,560	125	74	40	24	44
18	75	58	71	79	66	165	756	116	67	38	30	56
19	95	64	61	98	64	173	537	360	100	108	32	37
20	75	66	55	84	64	142	433	216	197	79	25	34
21	73	59	54	71	50	126	424	176	92	24	24	33
22	72	56	45	69	75	126	425	151	474	30	26	33
23	72	54	50	73	67	127	312	135	101	28	24	34
24	71	52	47	72	68	127	282	128	183	30	24	29
25	69	55	51	89	69	120	268	185	161	52	26	27
26	58	53	51	96	1,120	120	256	128	197	83	23	25
27	56	50	50	75	1,220	118	223	110	55	67	19	26
28	66	53	55	80	613	110	214	106	94	26	19	24
29	69	57	48	70	-------	104	231	117	118	58	19	33
30	63	71	49	60	-------	105	192	127	50	61	25	80
31	61	-------	51	55	-------	106	-------	107	-------	52	18	-------
1929-30												
1	110	104	79	128	98	144	114	112	65	33	16	21
2	1,870	98	87	126	99	153	114	106	60	47	13	120
3	1,080	312	87	124	106	137	99	102	56	28	18	48
4	314	243	91	109	156	126	97	98	50	35	15	13
5	199	163	89	98	477	125	90	93	48	32	12	12
6	152	145	87	99	301	126	216	93	56	33	13	16
7	135	135	102	99	232	150	887	109	57	34	13	26
8	116	125	119	98	210	697	369	96	59	35	11	25
9	101	116	89	99	184	344	288	81	78	35	12	24
10	96	115	83	94	181	282	256	77	96	32	10	19
11	85	110	78	86	162	282	233	80	83	29	10	18
12	83	104	77	99	146	264	224	77	71	33	16	17
13	83	99	82	105	216	216	213	78	58	36	11	60
14	75	100	93	200	279	195	202	86	39	36	14	132
15	79	99	89	191	232	176	198	127	35	31	21	54
16	68	93	83	141	189	175	173	96	37	28	18	21
17	70	107	74	122	175	169	176	80	143	28	19	31
18	63	280	82	127	176	170	169	84	415	24	28	23
19	64	172	94	121	189	229	165	85	124	26	21	25
20	63	130	84	118	181	162	158	88	52	22	22	25
21	64	118	68	125	166	149	151	79	55	25	21	26
22	656	108	66	122	159	140	147	73	51	25	20	21
23	647	105	76	115	160	136	139	71	50	16	20	24
24	194	109	76	113	156	132	136	136	56	20	23	19
25	154	102	72	111	162	162	133	149	214	31	24	35
26	136	102	74	116	177	182	124	77	85	23	18	13
27	124	97	75	107	192	135	124	68	77	24	60	17
28	108	102	131	110	149	124	122	76	62	21	29	19
29	99	89	159	107	-------	122	119	73	28	15	19	16
30	102	67	137	95	-------	121	112	77	30	15	25	23
31	119	-------	125	99	----	112	-------	64	-------	15	24	-------

Daily discharge, in second-feet, of South Branch of Codorus Creek near York, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	17	27	48	40	33	59	175	44	100	18	10	16
2	16	27	30	28	35	69	223	47	71	13	10	30
3	14	33	25	32	30	45	127	48	42	14	10	230
4	14	35	25	38	33	40	105	44	57	26	32	49
5	22	27	28	80	30	37	92	38	41	30	16	28
6	16	50	30	428	30	34	89	36	21	25	13	15
7	17	20	41	93	31	35	174	43	25	32	10	20
8	22	28	37	41	31	160	223	175	58	24	10	20
9	18	32	34	42	143	85	135	86	37	59	10	18
10	19	29	29	46	140	50	119	66	36	172	26	15
11	19	28	31	39	45	43	105	118	36	74	108	13
12	18	30	30	41	46	42	49	107	29	28	43	12
13	19	30	36	37	53	35	81	84	20	20	24	15
14	15	31	30	30	54	35	72	63	27	34	17	43
15	23	32	26	29	40	37	66	83	27	68	19	44
16	10	36	20	28	43	44	63	52	217	64	19	18
17	21	42	15	51	44	52	60	40	145	20	18	13
18	17	53	26	33	91	69	56	62	50	10	12	15
19	25	43	27	291	60	96	55	39	32	10	12	12
20	21	26	32	148	52	82	51	45	23	11	14	16
21	22	28	28	54	53	77	48	62	22	18	18	19
22	20	29	23	29	50	65	50	57	22	12	21	16
23	19	27	30	44	47	61	92	74	35	11	142	13
24	28	26	23	38	44	50	57	55	141	11	88	15
25	22	36	21	42	36	50	52	49	47	9.6	33	13
26	19	30	40	38	36	47	63	47	15	9.6	30	25
27	22	26	480	39	35	42	69	39	26	9.4	24	31
28	29	17	100	42	32	53	49	35	32	10	24	19
29	22	26	51	38	-------	338	46	33	47	9.4	127	17
30	25	27	46	36	-------	139	44	32	13	23	46	14
31	33	-------	30	38	-------	97	-------	51	-------	12	22	-------
1931-32												
1	15	21	28	137	28	30	364	309	58	31	19	18
2	16	20	21	245	33	27	250	146	56	34	19	14
3	13	18	98	60	33	29	222	100	53	29	20	19
4	14	20	26	41	71	45	187	88	48	38	25	21
5	11	18	26	40	121	65	161	82	54	39	23	18
6	14	18	21	88	60	60	152	52	49	34	17	121
7	14	12	19	161	53	65	132	54	46	35	54	35
8	16	22	19	85	50	78	125	67	42	36	175	20
9	26	19	33	107	45	56	142	137	42	29	32	14
10	17	18	69	86	43	46	208	92	40	26	24	9.4
11	15	19	42	59	39	42	175	182	40	26	152	13
12	13	19	44	54	44	40	143	233	51	22	32	12
13	11	17	38	47	40	38	121	695	60	22	24	13
14	9	16	35	43	33	39	111	383	57	18	19	12
15	14	19	26	40	36	36	101	294	53	19	14	9
16	28	20	23	40	32	34	93	229	250	21	18	15
17	16	20	21	34	44	72	89	189	68	23	15	10
18	16	18	19	34	43	130	84	162	64	21	30	13
19	12	19	20	31	37	162	82	139	56	16	78	12
20	15	18	22	32	32	187	76	125	54	22	33	15
21	12	21	20	29	30	147	74	117	52	35	30	16
22	11	19	23	29	35	258	69	122	66	136	21	11
23	23	21	31	32	33	246	68	101	46	71	25	9
24	11	20	26	27	26	176	63	93	37	31	20	11
25	9.4	19	22	33	31	146	68	83	36	31	18	12
26	10	17	19	30	32	132	67	77	35	38	15	9.6
27	10	17	20	36	30	130	61	73	38	41	13	17
28	9.8	25	20	34	39	1,080	56	75	47	26	19	20
29	12	29	20	29	37	483	54	68	39	21	13	19
30	24	21	22	52	-------	328	49	68	34	20	51	16
31	17	-------	23	41	-------	315	-------	61	-------	20	27	-------

Note.—Discharge estimated for periods of ice effect, Jan. 14, 15, Jan. 30 to Feb. 4, 1929, Mar. 11–17, 1932, and for periods of missing recorder record, Mar. 8–26, May 7–24, 1929.

Monthly discharge, in second-feet, of South Branch of Codorus Creek near York, 1928-1932.

Month	Observed			Corrected for diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928–29						
October	154	56	77.5	88.9	0.760	0.88
November	114	50	61.8	73.3	.626	.70
December	118	42	58.5	69.5	.594	.68
January	282	56	96.2	107.3	.915	1.05
February	1,220	50	197	207	1.77	1.84
March	788	104	260	272	2.32	2.68
April	1,560	89	312	323	2.76	3.08
May	576	106	176	187	1.60	1.84
June	474	50	114	126	1.08	1.20
July	108	24	53.3	65.7	.562	.65
August	74	18	31.0	44.5	.380	.44
September	194	14	49.3	61.8	.528	.59
The year	1,560	14	123	135	1.15	15.63
1929–30						
October	1,870	63	236	248	2.12	2.44
November	312	67	128	140	1.20	1.34
December	159	66	90.6	102	.872	1.01
January	200	86	116	128	1.09	1.26
February	477	98	190	202	1.73	1.80
March	697	112	188	200	1.71	1.97
April	887	90	192	204	1.74	1.94
May	149	64	90.0	103	.88	1.02
June	415	28	79.7	93.5	.799	.89
July	47	15	28.0	44.2	.378	.44
August	60	10	19.2	34.1	.291	.34
September	132	12	31.4	44.7	.382	.43
The year	1,870	10	115	128	1.09	14.88
1930–31						
October	33	10	20.3	32.9	.281	.32
November	53	17	30.1	41.5	.355	.40
December	480	15	47.3	58.6	.501	.58
January	501	28	71.7	82.7	.707	.82
February	143	30	49.9	60.6	.518	.54
March	338	33	67.9	78.7	.673	.78
April	223	44	89.7	101	.863	.96
May	175	32	59.8	71.0	.607	.70
June	217	13	50.1	61.6	.526	.59
July	172	9.4	28.6	42.1	.360	.42
August	142	10	32.5	45.2	.386	.44
September	230	12	27.5	40.2	.344	.38
The year	501	9.4	47.9	59.6	.509	6.93
1931–32						
October	28	9	14.7	27.2	.232	.27
November	29	12	19.3	30.4	.260	.29
December	99	19	29.0	39.6	.338	.39
January	161	29	56.3	66.0	.564	.65
February	121	26	41.7	51.7	.442	.48
March	1,080	27	152	162	1.40	1.59
April	364	49	122	132	1.13	1.26
May	695	52	151	162	1.38	1.59
June	250	34	55.7	68.2	.583	.65
July	136	16	32.6	45.4	.388	.45
August	175	13	34.7	46.8	.400	.46
September	121	9	18.5	30.2	.258	.29
The year	1,080	9	60.8	72.0	.615	8.38

SUSQUEHANNA BASIN—STATION NO. 48

CONESTOGA CREEK AT LANCASTER

LOCATION.—Water-stage recorder above diversion dam of city water works, three-fourths mile east of Lancaster, Lancaster County.

DRAINAGE AREA.—322 square miles.

RECORDS AVAILABLE.—September, 1928, to September, 1932.

EXTREMES.—Maximum discharge during period ending Sept. 30, 1929, about 9,400 second-feet Feb. 28 (gage height, 6.58 feet); minimum, 47 second-feet Sept. 6 (gage height, 0.22 foot).

Maximum discharge during year ending Sept. 30, 1930, 2,680 second-feet Oct. 2 (gage height, 3.00 feet); no flow over dam Aug. 11.

Maximum discharge during year ending Sept. 30, 1931, 4,220 second-feet July 11 (gage height, 5.20 feet); minimum, not determined.

Maximum discharge during year ending Sept. 30, 1932 (estimated), 5,480 second-feet Mar. 28 (gage height, 5.96 feet); minimum gage height, 0.31 foot July 31 (discharge not determined).

REMARKS.—Records good prior to Oct. 1, 1930, and fair to poor thereafter. Discharge affected by ice Jan. 29 to Feb. 1, 1929, Mar. 11-15, 1932. Discharge not computed for Apr. 1 to July 31, 1932, owing to extremely unstable conditions. Water supply for city of Lancaster diverted at gage not included in records except in part of monthly table. Records furnished by United States Geological Survey Office, Trenton, N. J., Prior to Oct. 1, 1931. Gage-height observer paid by City of Lancaster. All other costs of equipment, maintenance, and operation of station paid by Philadelphia Electric Co., Philadelphia, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29													
1	-------	225	109	260	152	110	832	322	530	342	254	135	94
2	-------	182	113	202	622	109	652	297	530	316	243	130	83
3	-------	162	113	157	231	105	570	272	695	316	214	135	98
4	-------	152	126	135	172	152	652	272	785	303	202	118	98
5	-------	152	187	130	139	122	2,240	322	570	303	172	126	*120
6	-------	152	157	105	261	109	3,900	451	570	303	348	135	47
7	-------	172	130	105	322	1,730	1,520	335	610	297	214	135	63
8	-------	152	113	109	182	762	880	297	610	297	192	109	225
9	-------	148	118	87	172	362	832	272	530	316	192	118	291
10	-------	143	109	98	280	272	652	303	494	316	172	126	192
11	-------	130	98	118	531	243	610	402	458	285	162	126	130
12	-------	130	98	102	254	197	570	494	437	272	162	135	118
13	-------	130	130	94	177	277	570	570	494	254	152	148	102
14	202	118	118	105	211	162	695	409	494	254	118	143	90
15	202	130	109	157	187	152	740	395	494	279	122	167	143
16	172	135	109	162	167	157	652	1,050	444	310	139	162	157
17	187	130	102	148	148	143	570	3,020	416	272	122	143	148
18	182	130	94	148	157	167	494	1,290	388	248	126	118	266
19	177	157	105	148	197	162	458	980	404	219	260	118	143
20	202	162	148	135	219	157	444	832	652	279	208	118	118
21	243	130	162	113	182	152	423	832	530	423	139	122	105
22	202	130	130	109	157	143	402	980	530	458	139	109	87
23	152	135	118	90	157	152	409	880	458	368	162	102	94
24	177	130	113	90	172	139	416	695	423	303	148	109	105
25	172	130	94	90	187	157	388	610	423	335	143	113	94
26	157	126	102	98	148	1,990	362	880	416	570	187	109	87
27	167	130	130	113	143	4,950	368	785	409	388	214	105	83
28	152	109	109	102	157	1,460	322	652	395	291	152	109	83
29	162	118	105	105	140	-------	291	695	388	342	130	102	76
30	182	139	102	87	120	-------	297	610	375	279	148	102	98
31	-------	126	-------	90	110	-------	316	-------	362	-------	152	98	-------

*Estimated.

Daily discharge, in second-feet, of Conestoga Creek at Lancaster, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	182	157	162	381	297	740	[a]340	254	152	187	50	26
2	1,040	152	182	362	272	740	[a]320	248	172	182	47	31
3	1,530	289	182	395	279	652	[a]300	237	177	182	39	31
4	494	652	177	423	303	570	[a]290	208	152	167	41	44
5	329	297	177	329	761	530	[a]280	225	135	152	47	31
6	249	219	177	291	695	530	[a]320	214	139	135	41	24
7	248	192	182	291	458	530	1,440	202	130	[a]120	36	24
8	219	182	202	297	409	1,020	832	202	143	[a]100	41	22
9	192	167	303	316	[a]380	832	530	208	152	[a]95	36	28
10	177	143	219	291	[a]360	570	494	177	274	[a]85	14	24
11	167	172	197	260	[a]380	570	458	167	216	90	7	24
12	167	167	177	254	[a]420	695	437	187	214	90	20	24
13	143	157	182	348	[a]500	570	423	177	182	87	22	24
14	157	152	279	526	[a]800	494	423	182	162	[a]80	20	225
15	157	157	310	872	652	458	395	276	148	[a]70	24	98
16	143	172	291	520	530	451	388	291	152	[a]65	38	69
17	118	152	231	409	494	458	437	225	167	66	28	182
18	118	862	219	368	494	451	430	187	162	66	36	118
19	122	865	297	316	530	816	423	214	208	44	26	66
20	94	423	329	362	610	570	375	208	202	41	33	53
21	105	355	248	381	610	494	355	192	143	50	36	44
22	130	310	192	362	530	423	329	177	139	63	31	36
23	219	266	219	348	494	409	316	177	122	60	24	38
24	182	254	208	303	494	423	297	186	143	56	28	36
25	139	272	208	342	1,120	423	285	452	135	69	26	36
26	135	243	219	335	880	530	279	310	128	72	81	33
27	109	237	219	381	1,220	494	266	219	434	63	31	41
28	122	208	219	368	832	423	272	202	243	60	50	47
29	135	225	362	362	------	388	260	208	187	66	50	33
30	122	152	430	316	------	381	248	214	177	60	41	33
31	139	------	329	285	------	355	------	182	------	56	24	------
1930–31												
1	31	38	33	102	76	90	237	122	98	69	83	105
2	31	33	31	90	72	113	695	139	113	76	[a]75	167
3	28	33	36	94	90	135	652	[a]120	36	69	66	1,130
4	31	47	56	60	79	113	695	105	83	[a]70	87	192
5	53	53	33	102	72	102	[a]400	122	90	[a]65	63	167
6	20	53	31	930	63	94	243	113	63	69	56	[a]130
7	26	53	22	342	66	94	219	122	[a]750	368	63	90
8	28	47	36	177	69	105	494	458	1,030	530	38	109
9	26	47	38	152	90	310	266	451	243	167	[a]36	66
10	26	41	47	135	388	237	208	[a]340	152	1,030	83	63
11	26	38	18	98	197	162	197	197	126	2,400	1,400	87
12	26	38	31	109	143	139	[a]190	197	122	[a]600	266	105
13	18	42	36	113	152	122	172	231	105	316	197	[a]90
14	20	47	22	102	219	118	177	197	[a]100	260	148	72
15	26	44	33	90	152	109	167	202	83	219	122	76
16	33	44	10	87	152	113	139	208	118	231	[a]100	76
17	33	41	33	87	177	139	139	[a]170	368	197	90	63
18	31	44	26	72	785	167	148	135	177	182	94	69
19	33	86	22	1,030	316	208	[a]130	130	113	[a]180	79	69
20	41	60	26	652	219	231	105	130	109	177	63	[a]70
21	41	47	18	248	187	208	130	139	[a]100	202	56	66
22	38	38	26	167	139	177	122	135	83	162	56	69
23	41	28	31	135	143	167	126	139	76	157	[a]100	72
24	38	33	28	113	135	157	167	126	348	130	225	53
25	38	23	20	83	122	143	172	130	162	139	135	50
26	38	33	31	94	113	167	182	130	98	[a]140	94	50
27	36	22	695	102	113	192	157	126	87	90	76	[a]55
28	36	33	375	102	113	219	122	126	[a]85	98	38	60
29	41	28	126	98	------	[a]1,100	126	126	76	63	402	72
30	47	18	113	94	------	530	135	130	72	83	[a]320	55
31	47	------	118	87	------	254	------	[a]113	------	90	135	------

[a] Estimated.

Daily discharge, in second-feet, of Conestoga Creek at Lancaster, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	56	60	83	76	162	172	------	------	------	------	90	
2	50	63	83	469	167	152	------	------	------	------	72	
3	47	56	76	355	162	135	------	------	------	------	82	
4	38	66	55	208	217	130	------	------	------	------	82	
5	38	56	89	152	566	148	------	------	------	------	105	[a]70
6	56	56	102	397	303	148	------	------	------	------	94	
7	48	56	83	1,160	243	231	------	------	------	------	243	
8	53	41	87	494	248	388	------	------	------	------	152	
9	424	47	76	530	231	219	------	------	------	------	118	
10	157	63	129	423	202	152	------	------	------	------	53	
11	102	53	182	342	225	140	------	------	------	------	33	
12	102	41	152	285	214	135	------	------	------	------	50	
13	79	50	130	272	202	130	------	------	------	------	38	
14	66	60	118	260	162	128	------	------	------	------		
15	56	50	135	231	177	128	------	------	------	------		
16	181	47	102	214	152	130	------	------	------	------		[a]30
17	122	63	90	187	177	152	------	------	------	------		
18	83	60	79	197	248	388	------	------	------	------		
19	83	53	76	187	192	381	------	------	------	------		
20	69	50	53	167	162	449	------	------	------	------		
21	63	69	56	162	139	368	------	------	------	------		
22	56	50	76	162	152	494	------	------	------	------	[a]35	26
23	53	56	76	162	152	725	------	------	------	------		20
24	50	47	126	192	152	458	------	------	------	------		28
25	41	41	83	187	130	409	------	------	------	------		12
26	47	44	79	162	135	375	------	------	------	------		14
27	47	41	63	162	139	395	------	------	------	------		16
28	50	56	66	197	157	2,410	------	------	------	------		41
29	50	44	72	162	219	1,540	------	------	------	------		36
30	66	47	66	226	------	832	------	------	------	------		41
31	79	------	69	263	------	740	------	------	------	------		------

[a] Estimated.

Monthly discharge, in second-feet, of Conestoga Creek at Lancaster, 1928-1932.

Month	Observed			Corrected for diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928						
September 14–30	243	152	182	198	0.615	0.39
1928–29						
October	225	109	142	157	.488	.56
November	187	94	119	133	.413	.46
December	260	87	122	136	.422	.49
January	622	110	208	222	.689	.79
February	4,950	102	523	536	1.66	1.73
March	3,900	291	727	740	2.30	2.65
April	3,020	272	672	685	2.13	2.38
May	785	362	497	510	1.58	1.82
June	570	219	318	333	1.03	1.15
July	348	118	177	192	.596	.69
August	167	98	123	138	.429	.49
September	291	47	121	136	.422	.47
The year	4,950	47	311	325	1.01	13.68
1929–30						
October	1,530	94	244	258	.801	.92
November	865	143	275	288	.894	1.00
December	430	162	236	249	.773	.89
January	872	254	369	381	1.18	1.36
February	1,220	272	564	577	1.79	1.86
March	1,020	355	548	561	1.74	2.01
April	1,440	248	408	421	1.31	1.46
May	452	167	220	234	.727	.84
June	434	122	180	195	.606	.68
July	187	41	89.6	105	.326	.38
August	50	7	32.8	46.8	.145	.17
September	225	22	51.5	65.6	.204	.23
The year	1,530	7	266	280	.870	11.80
1930–31						
October	53	18	33.2	46.5	.144	.17
November	83	18	41.1	54.1	.168	.19
December	695	10	71.0	82.7	.257	.30
January	1,030	60	192	204	.634	.73
February	785	63	166	178	.553	.58
March	1,100	90	200	212	.658	.76
April	695	105	237	249	.773	.86
May	458	105	171	183	.568	.65
June	1,030	36	176	188	.584	.65
July	2,400	63	278	291	.904	1.04
August	1,400	36	156	169	.525	.61
September	1,130	50	120	133	.413	.46
The year	2,400	10	153	166	.516	7.00
1931–32						
October	424	88	81.0	94.3	.293	.34
November	66	41	52.9	65.3	.203	.23
December	182	53	90.5	103	.320	.37
January	1,160	76	279	291	.904	1.04
February	566	130	200	212	.658	.71
March	2,410	128	412	424	1.32	1.52
August	243	-------	59.4	72.1	.224	.26
September	-------	12	42.1	54.8	.170	.19

SUSQUEHANNA BASIN—STATION NO. 49

MUDDY CREEK AT CASTLE FIN

LOCATION.—Water-stage recorder 1 mile downstream from Castle Fin, York County, and 2¾ miles upstream from mouth of creek.

DRAINAGE AREA.—134 square miles.

RECORDS AVAILABLE.—October, 1928, to September, 1932.

EXTREMES.—Maximum gage height during period ending Sept. 30, 1929, 8.81 feet Feb. 26 (discharge not determined); minimum, 1.07 feet June 12, Sept. 2 (discharge not determined).

Maximum gage height during year ending Sept. 30, 1930, 7.95 feet Oct. 2 (discharge not determined); minimum, 0.93 foot Sept. 1, 28 (discharge not determined).

Maximum gage height during year ending Sept. 30, 1931, 6.81 feet Jan. 19 (discharge not determined); minimum, 0.90 foot Nov. 29 (discharge not determined).

Maximum discharge during year ending Sept. 30, 1932, 3,540 second-feet Mar. 28 (gage height, 7.31 feet); minimum, 4.9 second-feet Nov. 4, 6, Feb. 21 (gage height, 0.93 foot).

REMARKS.—Records good except those above 2,000 second-feet, and those estimated, which are fair. Slight regulation caused by operation of hydroelectric plant upstream. Records furnished by United States Geological Survey Office, Trenton, N. J., prior to Oct. 1, 1931. All costs of equipment, maintenance, and operation of station paid by Philadelphia Electric Co., Philadelphia, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	-------	118	180	154	100	385	145	199	162	a100	64	64
2	-------	122	120	183	160	328	140	199	145	a 90	86	52
3	-------	126	118	105	114	288	126	244	142	a 85	77	55
4	-------	208	103	a145	124	a384	124	202	142	a 80	92	54
5	-------	164	118	a116	109	2,620	232	196	138	a 80	82	52
6	-------	126	88	a365	118	1,310	194	194	138	a140	76	94
7	-------	124	101	a183	1,430	558	150	231	129	86	72	66
8	-------	124	105	a129	202	374	142	186	175	76	66	78
9	-------	a120	103	a172	154	318	140	172	157	101	72	310
10	-------	a110	99	a361	142	269	147	170	136	86	76	153
11	-------	a110	116	a211	129	250	147	164	136	79	60	140
12	-------	a110	111	a167	116	240	177	160	113	81	97	81
13	-------	a120	103	a156	110	237	154	183	120	81	453	76
14	-------	a120	124	a150	119	262	160	180	105	81	134	106
15	-------	120	175	a150	100	244	154	180	145	79	176	174
16	-------	111	126	a130	100	237	2,280	164	140	81	84	79
17	142	114	124	a110	107	211	1,400	157	124	79	77	91
18	133	116	118	a120	116	199	560	150	120	72	64	109
19	154	118	111	a130	105	191	411	528	107	127	76	86
20	145	147	116	a140	109	191	346	315	157	84	67	72
21	131	109	99	120	81	180	328	262	122	77	61	60
22	133	111	82	101	114	177	364	228	305	79	69	64
23	129	118	99	118	147	167	278	205	124	86	66	74
24	138	105	114	120	118	167	253	199	124	81	55	72
25	131	107	111	150	138	162	247	244	122	81	64	60
26	124	114	133	154	2,060	160	256	191	124	88	66	58
27	124	94	101	131	1,890	160	225	183	109	79	49	52
28	124	105	101	138	1,240	150	214	172	109	69	101	60
29	133	109	95	123	-------	145	219	177	a120	67	61	60
30	118	124	90	110	-------	142	202	287	a110	105	52	132
31	120	-------	92	100	-------	136	-------	167	-------	72	67	-------

aEstimated because of missing gage-height record.

Daily discharge, in second-feet, of Muddy Creek at Castle Fin, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	177	129	116	126	162	164	147	129	90	70	44	63
2	2,340	144	120	124	126	170	145	124	90	124	43	298
3	455	404	136	116	126	162	138	124	86	76	44	81
4	228	294	131	111	150	157	140	118	84	74	44	41
5	177	268	136	100	411	154	136	122	82	69	39	47
6	147	180	124	100	262	160	196	122	83	66	38	36
7	133	162	131	100	199	172	779	116	130	76	39	40
8	120	152	145	110	183	611	288	120	118	67	41	49
9	107	147	122	150	164	311	231	109	122	58	32	39
10	107	138	109	120	162	259	208	109	203	63	35	42
11	99	138	105	100	157	253	196	107	131	58	36	40
12	103	136	105	100	150	256	191	103	95	58	36	37
13	95	136	114	100	267	219	183	105	94	58	38	38
14	90	133	124	140	294	205	180	107	90	56	32	48
15	84	138	114	260	234	194	172	129	90	60	52	42
16	81	131	107	170	208	191	164	131	88	58	46	97
17	97	131	103	140	231	194	172	111	84	51	47	116
18	76	400	111	120	202	194	186	103	152	54	47	40
19	86	219	129	110	202	228	172	105	101	52	44	46
20	86	172	120	110	199	191	162	118	86	49	35	39
21	84	157	101	110	188	180	157	107	81	46	38	38
22	957	147	105	110	180	170	160	99	79	40	43	40
23	388	142	103	110	172	167	150	95	79	54	34	42
24	180	142	136	110	172	167	147	104	88	193	40	35
25	154	140	131	120	183	180	147	173	118	106	34	44
26	142	136	131	120	186	211	142	107	74	56	33	35
27	131	133	114	130	199	167	138	99	99	52	84	43
28	124	126	124	145	172	162	131	99	77	48	102	35
29	118	131	124	147	-------	157	131	108	74	63	37	34
30	129	84	150	133	-------	154	131	97	70	62	40	37
31	147	-------	124	129	-------	150	-------	94	-------	43	37	-------
1930–31												
1	32	42	72	55	40	72	264	52	88	35	21	34
2	35	38	45	34	48	85	273	61	76	54	28	34
3	35	42	39	51	55	61	167	64	60	39	29	201
4	35	48	44	68	44	52	140	62	51	35	124	52
5	37	45	42	249	44	55	118	48	51	40	28	44
6	32	45	48	899	48	47	107	62	52	44	28	37
7	37	38	46	134	40	48	157	70	45	50	26	40
8	38	40	49	88	48	244	164	194	79	46	21	27
9	34	43	42	88	343	149	129	118	52	33	22	38
10	37	42	41	74	182	97	116	111	51	101	94	27
11	41	44	42	61	78	74	107	124	51	52	120	34
12	30	43	41	64	79	68	94	120	50	37	79	26
13	32	42	40	68	77	54	86	124	48	38	48	34
14	37	50	34	54	71	66	81	105	39	32	39	34
15	34	47	38	54	48	55	81	99	45	30	31	48
16	37	43	32	40	59	63	72	88	85	39	40	34
17	39	63	33	53	83	78	74	76	103	33	26	30
18	38	208	38	50	136	106	69	76	51	27	27	30
19	36	54	42	1,110	85	110	67	72	46	31	27	22
20	35	47	51	163	71	106	64	67	40	67	27	23
21	36	41	41	89	66	97	60	92	40	64	35	36
22	37	38	46	51	61	91	62	76	42	33	32	37
23	39	40	39	61	63	80	118	109	39	42	341	23
24	41	42	44	69	55	76	74	70	82	52	135	26
25	40	49	62	52	52	89	67	72	48	27	56	36
26	41	44	67	58	50	82	74	69	36	26	46	48
27	37	40	1,200	60	50	66	84	66	50	25	46	38
28	44	28	152	54	43	78	66	55	35	26	56	34
29	48	30	84	51	-------	357	62	56	37	20	120	39
30	45	41	74	47	-------	182	64	52	37	44	48	27
31	44	-------	78	48	-------	136	-------	61	-------	27	42	-------

Daily discharge, in second-feet, of Muddy Creek at Castle Fin, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	28	28	39	179	36	46	325	196		70	43	40
2	33	30	33	165	59	40	249	147		86	45	28
3	28	31	33	77	56	40	224	113		64	41	103
4	32	31	34	58	95	54	192	102		70	65	56
5	28	28	38	56	130	77	177	102	[a]130	91	54	47
6	29	30	58	118	85	71	171	129		70	37	117
7	32	25	33	212	70	102	158	108		70	36	35
8	33	35	29	119	71	96	151	99		71	72	41
9	27	28	60	143	62	80	159	151		71	40	35
10	26	34	102	110	55	65	245	124		47	47	39
11	29	32	50	88	63	60	225	171		55	191	32
12	27	31	63	68	54	55	190	277		60	54	33
13	24	32	48	71	60	50	169	806		58	41	34
14	27	26	44	64	45	49	153	354	[a]120	38	49	33
15	21	32	37	61	51	50	145	264		51	33	36
16	31	28	36	56	44	48	135	221		52	41	34
17	29	39	35	54	59	103	128	192			37	36
18	26	24	34	48	64	123	127	171	106		89	37
19	26	35	33	50	51	125	122	156	90		178	29
20	27	32	34	47	49	143	116	151	91		54	35
21	28	32	32	45	45	118	115		91		43	25
22	28	30	38	44	48	216	113		109		45	34
23	23	28	46	48	50	207	106		86		45	33
24	30	31	38	55	36	156	101		72		42	41
25	23	32	37	49	52	132	106		66	[a]55	39	30
26	29	31	34	42	49	121	112	[a]140	67		41	24
27	26	28	37	68	42	125	102		78		36	39
28	27	32	32	54	50	1,470	99		119		39	51
29	52	37	33	47	44	454	92		87		54	39
30	41	38	32	76	-------	308	92		70	41	36	36
31	33	-------	37	64	-------	313	-------		-------	46	46	-------

[a]Estimated because of missing gage-height record.

Note.—Discharge estimated for periods of ice effect, Jan. 30 to Feb. 2, Feb. 13–16, 1929, Jan. 25–27, 1930, Mar. 11–16, 1932.

Monthly discharge, in second-feet, of Muddy Creek at Castle Fin, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October 17–31	154	118	132	0.285	0.55
November	208	94	121	.903	1.01
December	180	82	112	.836	.96
January	365	100	153	1.14	1.31
February	2,060	81	339	2.53	2.64
March	2,620	136	350	2.61	3.01
April	2,280	124	330	2.46	2.74
May	628	150	209	1.56	1.80
June	305	105	137	1.02	1.14
July	140	67	85.5	.638	.74
August	453	49	89.1	.665	.77
September	310	52	89.5	.668	.75
1929–30					
October	2,340	76	240	1.79	2.06
November	404	84	168	1.25	1.40
December	150	101	121	.903	1.04
January	260	100	125	.933	1.08
February	411	126	198	1.48	1.54
March	611	150	204	1.52	1.75
April	779	131	187	1.40	1.56
May	173	94	113	.843	.97
June	203	70	97.9	.731	.82
July	193	40	66.5	.496	.57
August	102	32	43.0	.321	.37
September	298	34	55.4	.413	.46
The year	2,340	32	134	1.00	13.62
1930–31					
October	48	30	37.5	.280	.32
November	208	28	48.6	.363	.40
December	1,200	32	88.6	.661	.76
January	1,110	32	132	.985	1.14
February	343	40	75.7	.565	.59
March	357	47	97.5	.728	.84
April	273	60	105	.784	.87
May	194	48	82.9	.619	.71
June	103	35	53.6	.400	.45
July	101	20	40.3	.301	.35
August	341	21	59.4	.443	.51
September	201	22	39.8	.297	.33
The year	1,200	20	71.9	.537	7.27
1931–32					
October	52	21	29.1	.217	.25
November	39	24	31.0	.232	.26
December	102	27	40.0	.299	.34
January	212	42	78.4	.585	.67
February	130	36	57.8	.431	.46
March	1,470	40	164	1.22	1.41
April	325	92	153	1.14	1.27
May	806	----------	189	1.34	1.54
June	----------	66	109	.813	.91
July	----------	----------	58.9	.440	.51
August	191	36	56.2	.419	.48
September	117	24	41.1	.307	.34
The year	1,470	21	83.4	.622	8.44

OHIO BASIN

ALLEGHENY RIVER AT LARABEE*

LOCATION.—Chain gage at bridge on U. S. Highway No. 6 at Larabee, McKean County, 1½ miles below mouth of Potato Creek, and 3½ miles south of Eldred.

DRAINAGE AREA.—545 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 4,900 second-feet Mar. 16 (gage height, 13.00 feet); minimum, 39 second-feet Sept. 7 (gage height, 0.42 foot).

Maximum discharge during year ending Sept. 30, 1930, 4,560 second-feet Jan. 14 (gage height, 12.40 feet); minimum, 9.1 second-feet Aug. 12, 14 (gage height, 0.34 foot).

Maximum discharge during year ending Sept. 30, 1931, 4,800 second-feet June 9 (gage height, 12.8 feet from graph based on gage readings); minimum, 17 second-feet Sept. 11 (gage height, 0.38 foot).

Maximum discharge during year ending Sept. 30, 1932, 4,440 second-feet Apr. 2 (gage height, 12.15 feet); minimum, about 5 second-feet Sept. 6, 7, 25 (gage height, 0.28 foot).

1915-1932: Maximum discharge, about 9,100 second-feet Nov. 18, 1927 (gage height, 17.6 feet from graph based on gage readings); minimum, that of Sept. 6, 7, 25, 1932.

REMARKS.—Records fair prior to June 23, 1930 and good thereafter except those for periods of ice effect, which are poor. Cost of all equipment, maintenance, and operation after June 30, 1932, paid by United States Engineer Office, Pittsburgh, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	58	213	2,610	260	220	3,020	1,920	1,880	669	247	80	50
2	62	204	2,810	260	200	2,410	1,990	1,730	615	264	92	46
3	58	247	2,280	460	200	2,000	1,770	1,920	562	213	84	45
4	62	339	1,770	420	200	1,800	1,660	1,770	462	179	88	45
5	64	300	1,580	380	220	1,700	2,180	2,140	419	188	86	45
6	68	247	1,400	420	240	1,600	3,410	2,280	379	264	58	45
7	58	230	1,130	1,200	240	1,500	3,930	2,560	359	247	50	40
8	57	213	980	900	220	1,470	3,530	2,300	319	399	70	50
9	56	264	833	700	200	1,230	2,710	2,070	282	282	78	101
10	57	230	723	700	190	891	2,320	1,770	247	615	104	230
11	52	213	723	700	180	891	2,710	1,440	213	1,040	78	115
12	56	230	588	550	170	1,260	2,610	1,330	204	642	72	72
13	63	300	510	440	160	1,950	2,500	1,730	213	642	72	64
14	94	282	485	400	160	3,350	2,230	1,580	196	833	66	60
15	82	247	485	380	160	4,530	1,920	3,070	170	588	69	69
16	78	247	462	380	160	4,900	2,460	3,410	162	419	64	76
17	76	247	462	380	160	4,710	2,710	3,350	179	359	60	282
18	230	230	1,070	460	160	4,220	2,140	2,760	145	300	63	339
19	615	440	920	2,200	160	3,700	1,880	2,500	128	264	57	136
20	300	1,540	833	4,580	160	2,960	2,230	2,610	118	213	52	114
21	188	1,160	777	3,880	150	2,360	3,470	2,410	145	213	54	93
22	154	950	600	3,130	140	2,860	4,050	2,910	339	179	48	74
23	128	833	500	2,140	140	3,410	3,990	2,460	379	162	51	106
24	145	723	500	1,470	150	3,990	3,470	1,950	485	136	78	102
25	230	669	480	1,230	160	3,880	2,910	1,770	282	162	75	76
26	419	562	440	1,010	300	3,700	2,810	1,400	282	213	60	62
27	900	510	380	777	1,400	3,580	2,320	1,130	204	136	54	44
28	264	462	340	550	3,580	3,240	1,990	1,070	247	126	54	54
29	319	440	300	380	-------	2,610	2,320	1,200	510	145	48	62
30	264	669	280	500	-------	1,990	2,070	1,010	300	162	51	50
31	230	-------	260	240	-------	1,770	-------	805	-------	102	52	-------

* Formerly published as Allegheny River near Larabee.

Daily discharge, in second-feet, of Allegheny River at Larabee, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	99	427	561	765	387	3,210	920	705	319	153	24	21
2	222	427	538	950	387	2,710	1,620	705	266	151	20	29
3	3,060	515	515	2,140	368	1,940	1,780	640	225	118	20	32
4	3,540	492	492	2,220	368	1,580	1,660	590	191	120	20	29
5	2,070	515	470	1,780	350	1,340	1,460	538	165	105	20	24
6	1,100	470	422	1,580	332	1,130	1,380	538	159	84	20	21
7	780	448	515	1,430	315	1 240	1,460	492	145	120	21	17
8	608	470	1,070	2,100	298	1,940	1,620	426	149	106	17	16
9	492	587	1,620	3,360	298	1,980	1,340	448	114	86	12	19
10	407	368	1,310	4,200	280	1,700	1,460	382	347	65	16	15
11	368	568	1,070	4,140	280	1,930	1,500	361	594	52	12	12
12	315	368	861	3,900	298	2,910	1,540	319	361	42	10	12
13	332	350	928	4,200	332	2,660	1,540	319	382	37	12	16
14	280	492	1,850	4,560	368	2,180	1.460	340	266	65	11	16
15	262	890	2,120	4,440	280	1,740	1 280	448	167	61	21	19
16	244	427	1,820	4,080	244	1,620	1,820	492	151	61	24	24
17	225	971	1,780	3,420	244	1,620	2,960	382	215	54	25	25
18	206	2,660	3,010	2,410	262	1,980	3,540	340	404	42	16	28
19	187	3,360	3,600	1,540	262	2,860	3,720	382	468	41	20	28
20	187	3,160	4,200	1,460	332	2,860	3,720	2,280	340	38	24	24
21	177	2,560	4,020	1,250	920	2,460	3,160	1,620	266	38	22	20
22	249	1,900	3,310	1,130	1,130	1,860	2,760	1,250	225	36	20	16
23	1,270	1,620	2,360	950	1,100	1,420	2,180	890	256	38	24	15
24	906	1,190	1,700	833	1,130	1,250	1,780	806	187	41	26	16
25	815	1,010	1,380	755	2,100	1,160	1,380	705	235	37	29	26
26	705	890	1,160	680	3,540	1,610	1,220	561	298	33	32	39
27	632	861	1,010	608	4,440	1,380	1,010	492	361	33	36	42
28	608	861	1,040	538	3 840	1,220	861	448	319	33	32	52
29	492	656	861	492	-------	1,130	780	470	209	30	26	32
30	448	608	780	448	-------	1,100	705	361	153	30	22	26
31	448	-------	765	407	-------	980	-------	319	-------	28	20	-------
1930-31												
1	25	30	145	19	155	448	2,060	1,780	1,010	114	280	64
2	24	32	235	19	106	361	1,940	1,780	806	99	350	117
3	24	25	135	18	88	319	2,410	1,780	656	365	332	322
4	25	25	88	18	88	266	3,110	1,420	538	332	262	262
5	24	24	65	18	78	235	3,600	1,220	538	145	167	143
6	21	29	63	24	68	151	3,480	1,100	646	133	157	106
7	20	25	175	39	59	215	3,260	1,040	2,800	129	125	86
8	21	26	191	29	59	215	2.960	1,920	4,500	116	121	73
9	22	25	105	27	68	183	2.860	2.810	4,560	93	332	55
10	21	22	88	25	74	151	3,210	2.510	4,020	97	492	44
11	20	29	59	21	70	110	4.020	2,220	2,960	129	368	24
12	25	28	63	20	61	110	4.260	1,900	1.860	157	298	32
13	19	28	101	19	59	97	3,960	1.980	1.250	116	244	53
14	19	29	72	19	116	112	3.310	2,060	1.040	106	244	44
15	21	28	45	22	235	151	2,660	1,820	833	99	225	49
16	22	28	41	24	215	189	1.900	1.660	730	88	177	104
17	20	26	38	21	195	101	1.460	1.980	656	86	129	145
18	24	29	36	21	256	167	1.250	1.780	538	77	114	195
19	24	29	33	22	515	277	980	1,490	492	82	99	97
20	26	26	30	22	608	277	806	1.420	407	120	99	64
21	26	26	30	24	561	261	755	1.340	332	464	86	60
22	24	26	29	24	448	632	632	1.310	315	920	77	64
23	26	26	29	24	389	833	883	2.140	315	492	73	73
24	29	26	27	25	340	1.010	806	3.310	298	287	75	84
25	26	26	26	25	361	1,190	780	3,720	284	332	69	108
26	30	26	25	39	261	1,420	1.340	3,840	295	262	60	145
27	26	24	24	215	239	1.310	2,610	3,360	216	216	86	157
28	32	22	22	340	340	1,700	2.460	2,510	106	147	80	84
29	36	21	21	277	------	2.860	2.310	1.820	157	167	82	69
30	36	26	21	215	------	3,260	2.220	1.340	137	216	71	60
31	33	-------	9	195	------	2.710	-------	1.310	-------	262	58	-------

Daily discharge, in second-feet, of Allegheny River at Larabee, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	60	55	492	780	1,900	515	3,810	608	298	143	32	47
2	47	64	427	1,100	1,580	492	4,380	608	262	187	40	38
3	53	64	332	1,130	1,420	470	4,200	561	368	196	40	26
4	53	71	332	1,110	1,420	448	3,840	538	427	187	44	18
5	51	69	680	1,040	1,280	470	3,480	492	368	206	49	12
6	51	64	561	1,440	1,070	470	2,660	515	315	206	40	6.1
7	44	62	470	3,090	950	448	1,860	880	280	216	36	6.1
8	51	60	420	3,210	1,010	420	1,660	2,020	262	225	30	10
9	53	58	410	2,660	1,070	410	1,540	3,670	262	216	36	14
10	55	62	440	2,120	900	400	1,780	4,260	216	167	36	12
11	55	58	561	1,500	1,810	380	1,860	4,260	206	133	44	12
12	49	69	1,140	1,250	2,260	370	1,940	4,000	196	127	40	17
13	47	127	1,360	1,190	2,060	370	1,860	3,490	225	119	36	14
14	53	167	3,200	1,130	1,780	360	1,740	2,760	350	110	30	12
15	60	157	3,870	1,720	1,460	360	1,580	1,860	492	102	36	17
16	74	177	3,570	3,550	1,190	360	1,420	1,460	608	88	38	28
17	66	177	2,610	3,780	1,160	380	1,190	1,160	812	80	38	26
18	73	225	1,670	4,000	1,010	400	1,070	1,010	586	73	34	15
19	62	234	1,260	4,140	833	400	980	890	362	62	34	15
20	60	196	1,100	3,720	780	390	806	755	298	95	33	18
21	53	167	950	3,080	608	388	755	730	262	133	32	24
22	55	262	1,000	2,910	560	834	680	538	225	102	28	18
23	47	332	1,560	2,910	520	1,040	584	492	187	93	17	15
24	49	298	1,250	3,010	500	1,130	515	427	137	73	10	15
25	53	262	1,880	2,760	584	1,810	538	407	157	53	8.0	8.0
26	51	262	1,620	2,260	515	1,660	861	407	167	49	15	17
27	51	244	1,340	2,020	584	2,910	833	387	196	44	22	15
28	53	225	1,220	1,700	608	3,110	680	368	262	84	22	38
29	58	225	1,070	1,540	515	2,910	584	332	196	110	36	119
30	64	280	890	2,060	-------	2,710	584	332	145	64	49	60
31	60	-------	806	2,180	-------	2,360	-------	298	-------	44	99	-------

Note.—Discharge estimated for periods of ice effect, Dec. 22-31, 1928, Jan. 1-19, Jan. 28 to Feb. 27, Nov. 30 to Dec. 9, 1929, Jan. 24 to Feb. 21, Nov. 27 to Dec. 7, Dec. 16-31, 1930, Jan. 1 to Feb. 20, Dec. 8-10, 1931, Feb. 22-24, Mar. 8-20, 1932. Discharge estimated for periods of no gage heights, Mar. 3-7, 1929, May 3, 4, 1930.

Monthly discharge, in second-feet, of Allegheny River at Larabee, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	615	52	168	0.290	0.33
November	1,540	204	448	.822	.92
December	4,810	260	887	1.63	1.88
January	4,580	240	1,010	1.85	2.13
February	3,580	140	349	.640	.67
March	4,900	891	2,690	4.94	5.70
April	4,050	1,660	2,610	4.79	5.34
May	3,410	805	2,010	3.69	4.25
June	669	118	307	.563	.63
July	1,040	102	320	.587	.68
August	104	48	67.0	.123	.14
September	339	40	91.6	.168	.19
The year	4,900	40	918	1.68	22.86

Monthly discharge, in second-feet, of Allegheny River at Larabee, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929–30					
October	3,540	99	701	1.29	1.49
November	3,360	350	991	1.82	2.03
December	4,200	470	1,520	2.79	3.22
January	4,560	407	2,020	3.71	4.28
February	4,440	244	874	1.60	1.67
March	3,210	980	1,830	3.36	3.87
April	3,720	705	1,790	3.28	3.66
May	2,280	319	614	1.13	1.30
June	594	114	265	.486	.54
July	153	28	63.8	.117	.13
August	36	16	21.1	.039	.04
September	52	12	23.7	.043	.05
The year	4,560	10	894	1.64	22.28
1930–31					
October	36	19	24.9	.046	.05
November	32	21	26.4	.048	.05
December	235	20	67.2	.123	.14
January	340	18	59.4	.109	.13
February	608	59	227	.417	.43
March	3,260	97	694	1.27	1.46
April	4,260	632	2,280	4.18	4.66
May	3,840	1,040	1,990	3.65	4.21
June	4,560	137	1,110	2.04	2.28
July	920	77	211	.387	.47
August	492	58	175	.321	.37
September	322	24	97.1	.178	.20
The year	4,560	18	579	1.06	14.43
1931–32					
October	77	44	55.3	.101	.12
November	332	58	159	.292	.33
December	3,870	332	1,240	2.28	2.63
January	4,140	780	2,260	4.15	4.78
February	2,260	500	1,100	2.02	2.18
March	3,110	360	925	1.70	1.96
April	4,380	515	1,680	3.08	3.44
May	4,260	298	1,310	2.40	2.77
June	812	137	304	.558	.62
July	225	44	122	.224	.26
August	99	8.6	35.1	.064	.07
September	119	6.1	23.1	.042	.05
The year	4,380	6.1	768	1.41	19.21

ALLEGHENY RIVER AT FRANKLIN

LOCATION.—Chain gage at Eighth Street Bridge at Franklin, Venango County. Zero of gage is 958.26 feet above mean sea level.

DRAINAGE AREA.—6,010 square miles.

RECORDS AVAILABLE.—April, 1905, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 88,500 second-feet Jan. 19 (gage height, 15.00 feet from graph based on gage readings); minimum, 562 second-feet Sept. 6 (gage height, —0.08 foot).

Maximum discharge during year ending Sept. 30, 1930, 61,500 second-feet Feb. 26 (gage height, 11.6 feet from graph based on gage readings); minimum, 335 second-feet Aug. 21, Sept. 14 (gage height, —0.35 foot).

Maximum discharge during year ending Sept. 30, 1931, 43,300 second-feet Mar. 29 (gage height, 9.0 feet from graph based on gage readings); minimum, 402 second-feet Oct. 8 (gage height, —0.26 foot).

Maximum discharge during year ending Sept. 30, 1932, 64,500 second-feet May 9 (gage height, 12.0 feet from graph based on gage readings); minimum, 381 second-feet Sept. 17 (gage height, —0.31 foot).

1905-1932: Maximum discharge (estimated), 152,000 second-feet Mar. 26, 1913; maximum gage height, 24.0 feet caused by ice jam Feb. 27, 1917; minimum discharge, that of Aug. 21, Sept. 14, 1930.

Maximum free-flow stage known, 23.0 feet Mar. 17, 1865 (discharge not determined).

REMARKS.—Records good except those for periods of ice effect, which are poor. Cost of all equipment, maintenance, and operation of station after June 30, 1932, paid by United States Engineer Office, Pittsburgh, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	1,030	5,000	39,800	6,040	6,040	34,200	25,200	23,400	9,500	3,250	2,360	650
2	1,030	4,350	44,700	6,040	5,700	28,800	26,400	21,600	8,300	3,400	1,760	650
3	960	4,350	37,700	5,700	5,350	24,600	22,800	39,800	7,150	2,680	1,590	628
4	960	7,150	27,600	5,350	5,000	22,800	19,800	46,100	6,400	2,190	1,420	606
5	890	7,920	22,200	5,000	5,000	29,400	28,200	45,400	6,040	3,550	1,340	584
6	890	6,800	19,800	8,300	5,350	34,800	39,100	42,600	5,700	4,350	1,340	595
7	890	5,700	16,800	21,000	5,350	28,200	44,700	36,300	5,350	4,350	1,260	650
8	828	4,650	13,800	17,800	5,350	22,200	37,700	31,200	5,000	7,520	1,260	708
9	890	4,650	12,000	12,900	5,700	16,300	29,400	25,800	4,350	7,150	1,180	828
10	890	5,350	10,300	12,900	5,350	13,800	26,400	20,400	4,000	11,100	1,100	590
11	828	5,350	8,700	13,300	4,350	12,900	30,000	17,300	3,550	11,500	1,030	950
12	828	5,000	7,920	12,900	3,550	13,300	30,000	14,800	3,400	9,500	1,030	1,030
13	765	6,400	7,520	10,300	2,960	19,300	29,400	16,800	3,250	7,520	960	1,180
14	828	10,300	7,520	6,800	2,600	36,300	25,800	19,300	3,100	7,920	960	1,340
15	828	9,500	8,300	3,550	2,400	54,500	22,200	40,500	2,810	8,300	960	1,260
16	960	7,920	8,700	3,250	2,200	55,900	23,400	43,300	2,810	6,040	960	1,180
17	1,100	6,800	8,300	4,650	2,200	52,400	24,600	40,500	2,680	4,650	960	1,420
18	1,860	7,150	13,800	22,200	2,000	43,300	24,000	31,800	2,550	3,700	890	1,860
19	4,650	9,100	18,800	74,100	2,000	34,900	20,400	29,400	2,300	3,400	828	1,970
20	6,800	21,600	17,300	82,100	2,000	30,000	18,300	30,000	2,190	2,710	765	1,760
21	5,350	28,200	13,300	62,900	2,000	30,600	33,600	29,400	2,080	2,420	765	1,580
22	4,900	24,600	10,300	44,000	1,900	37,700	57,800	25,800	1,970	2,190	708	1,340
23	3,250	19,800	8,700	32,400	1,900	44,700	48,900	21,000	1,970	1,970	765	1,030
24	3,400	16,800	7,920	26,400	1,900	41,900	36,300	18,300	1,970	1,760	828	960
25	4,650	14,800	7,520	21,600	2,000	34,900	28,800	16,300	2,300	2,190	960	890
26	8,300	12,900	7,520	18,300	8,300	37,700	30,000	14,300	3,250	2,550	1,030	890
27	9,500	11,500	7,150	14,300	28,500	42,600	28,200	12,500	2,810	2,810	828	828
28	7,520	10,700	7,150	11,500	40,500	34,200	24,600	11,100	2,680	2,420	765	828
29	7,150	10,300	7,150	9,500	-------	26,400	30,000	13,800	4,350	2,420	708	828
30	7,150	12,900	6,800	7,920	-------	21,600	29,400	14,800	3,700	3,100	708	765
31	6,040	-------	6,400	6,400	-------	19,300	-------	11,500	-------	2,680	708	-------

Daily discharge, in second-feet, of Allegheny River at Franklin, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	765	3,250	7,150	9,100	4,800	33,600	14,800	7,920	4,000	1,970	513	426
2	890	4,000	6,040	14,800	4,700	28,880	22,800	7,520	3,550	1,860	495	450
3	7,260	8,300	5,350	29,000	4,700	25,800	26,400	8,300	3,250	1,670	477	459
4	13,200	8,300	4,850	34,200	4,700	20,400	22,800	7,920	2,960	1,500	459	459
5	11,500	7,150	4,750	28,200	4,700	16,300	18,300	7,150	2,550	1,340	450	477
6	8,300	6,800	4,800	21,600	4,700	14,800	15,300	6,400	2,300	1,340	442	477
7	6,040	6,400	5,350	17,300	4,400	15,300	13,800	6,040	2,550	1,970	442	459
8	4,350	5,700	11,000	24,800	4,300	21,600	14,300	5,700	2,420	1,500	434	442
9	3,400	4,650	21,400	49,400	4,200	25,200	13,800	5,350	2,420	1,340	426	426
10	2,680	4,350	20,400	58,700	4,100	22,800	15,300	5,350	2,680	1,180	426	410
11	2,300	4,000	17,300	53,100	4,000	22,200	19,800	4,650	3,700	1,100	410	394
12	2,080	4,000	13,300	47,500	4,100	33,000	20,400	4,350	5,350	1,030	410	378
13	1,860	3,700	23,500	54,500	8,110	32,400	17,800	4,000	5,350	1,030	394	356
14	1,760	4,650	23,400	58,700	12,000	28,800	16,300	3,700	3,700	1,420	394	342
15	1,670	7,520	33,000	53,800	12,500	25,800	14,300	4,000	2,960	1,580	378	342
16	1,670	8,700	30,600	46,800	9,500	21,000	16,800	4,650	2,420	1,420	378	363
17	1,580	9,500	26,600	37,000	6,800	18,300	31,800	5,000	2,420	1,180	363	386
18	1,500	25,400	39,400	27,600	6,800	20,400	33,600	4,650	2,550	1,100	356	418
19	1,420	36,300	47,500	19,300	6,800	28,200	32,400	5,350	3,100	960	349	426
20	1,340	30,600	41,900	15,800	9,500	26,400	27,600	9,900	4,350	890	342	434
21	1,340	24,000	31,200	13,800	18,700	21,600	21,600	14,800	4,000	828	335	418
22	1,580	18,300	23,400	12,900	28,200	18,300	20,400	13,300	3,550	828	349	402
23	10,300	13,800	18,800	10,700	25,200	14,800	18,300	10,300	3,100	890	363	386
24	8,700	11,500	15,800	8,700	21,600	12,500	15,800	8,300	2,680	765	426	356
25	6,800	10,300	12,500	6,800	25,800	11,500	13,800	6,800	2,300	765	442	370
26	6,400	9,100	11,100	6,040	51,700	15,300	12,500	6,040	2,190	708	442	410
27	5,700	8,300	10,700	5,600	56,600	18,300	11,500	5,350	2,190	708	442	450
28	4,650	9,500	9,900	5,400	43,300	16,300	10,300	5,000	2,190	650	434	584
29	4,000	10,700	9,900	5,300	-------	14,300	9,500	4,650	2,080	639	426	708
30	3,400	8,700	9,500	5,100	-------	13,800	8,700	4,650	2,080	595	418	650
31	3,250	-------	9,100	5,000	-------	14,300	-------	4,650	-------	551	410	-------
1930-31												
1	617	890	3,250	1,100	6,400	7,920	27,800	21,600	9,100	1,860	1,670	828
2	562	828	8,700	1,040	5,700	8,700	37,700	18,300	8,300	1,670	1,500	890
3	513	828	6,400	1,020	5,000	8,300	37,000	15,800	7,150	1,760	1,860	1,260
4	468	765	4,650	1,000	4,350	7,150	39,100	14,300	6,040	1,580	2,960	1,340
5	434	765	5,000	1,000	4,600	6,400	39,100	12,500	5,350	1,420	3,700	1,180
6	418	765	5,350	1,020	3,700	5,700	35,600	10,700	4,650	1,860	2,680	1,100
7	410	765	8,300	1,150	3,400	5,000	30,600	9,500	10,800	1,670	2,080	1,030
8	402	708	11,500	1,800	3,550	4,650	26,400	12,000	27,600	1,580	1,670	1,030
9	477	708	11,500	2,000	3,700	4,650	24,000	13,300	25,200	1,420	1,670	960
10	522	650	9,500	1,900	3,550	4,650	23,400	15,300	20,400	1,340	2,810	828
11	522	650	7,150	1,800	3,400	4,350	32,400	16,800	17,300	1,500	3,100	765
12	504	708	6,040	1,700	3,100	4,000	32,400	15,300	13,800	1,500	3,400	708
13	468	828	6,400	1,600	3,250	4,000	27,000	16,300	10,700	1,420	3,100	650
14	459	890	6,800	1,500	6,800	4,000	22,200	16,800	8,700	1,420	2,300	639
15	434	1,080	5,350	1,450	7,920	4,000	18,300	15,300	7,920	1,340	1,860	617
16	418	960	3,700	1,420	7,520	4,650	15,300	12,900	11,500	1,260	1,580	617
17	426	890	2,420	1,400	7,520	5,000	12,900	14,800	8,700	1,260	1,420	765
18	477	890	1,970	1,400	9,500	5,350	10,700	13,800	7,150	1,580	1,340	1,180
19	504	890	1,860	1,400	11,500	6,040	9,500	14,300	5,700	1,670	1,420	1,260
20	504	828	1,760	1,480	9,900	6,800	8,300	12,900	4,650	1,580	1,670	1,180
21	495	828	1,760	1,500	12,900	8,300	7,520	11,500	4,650	1,580	1,340	1,100
22	486	765	1,670	1,430	11,100	11,500	6,800	10,300	4,650	2,190	1,100	960
23	486	765	1,670	1,400	9,500	15,300	8,300	12,000	4,000	4,650	960	890
24	495	708	1,580	1,400	8,300	17,800	9,500	19,800	3,700	5,000	890	828
25	504	650	1,580	1,450	7,920	20,400	10,300	27,600	3,100	3,700	828	765
26	522	639	1,500	2,300	7,520	24,600	14,300	27,600	2,810	2,810	828	890
27	562	617	1,500	7,520	7,520	24,000	30,800	24,000	2,680	2,300	765	1,100
28	650	600	1,420	9,100	7,520	24,600	30,000	18,800	2,420	1,970	765	1,180
29	708	600	1,340	9,500	-------	39,100	27,000	14,800	2,300	1,670	765	1,100
30	708	708	1,260	8,700	-------	41,200	25,200	11,500	2,080	1,420	828	1,030
31	828	-------	1,180	7,920	-------	33,600	-------	9,900	-------	1,340	828	-------

Daily discharge, in second-feet, of Allegheny River at Franklin, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1,040	918	4,320	9,100	24,000	8,700	39,100	9,500	3,710	2,880	892	694
2	957	970	5,160	17,000	18,800	7,910	40,500	9,900	3,420	3,280	892	840
3	853	1,080	4,990	24,000	17,300	7,150	39,100	8,700	3,860	3,280	905	918
4	791	1,200	4,650	22,200	17,800	6,780	34,900	7,910	3,960	4,010	905	717
5	754	1,230	5,340	19,300	19,200	7,150	29,400	7,150	3,710	4,650	918	679
6	803	1,230	5,700	20,400	17,800	7,150	24,000	6,780	3,420	4,320	918	623
7	853	1,230	8,700	31,800	15,800	6,780	19,800	9,850	3,140	3,710	879	600
8	815	1,200	7,150	33,600	14,300	6,410	16,300	37,100	2,880	3,280	840	556
9	778	1,140	5,660	27,000	14,800	5,660	14,800	57,300	2,630	2,880	791	534
10	734	1,110	5,690	21,000	14,300	5,340	16,800	55,900	2,390	2,760	766	490
11	705	1,080	7,760	16,300	14,800	4,990	17,800	43,300	2,280	2,630	754	470
12	682	1,050	14,800	13,300	26,400	4,820	20,400	34,900	2,170	2,510	742	460
13	682	1,500	18,300	11,500	30,600	4,650	22,200	28,800	2,060	2,280	729	450
14	742	4,200	31,200	10,700	24,600	4,650	20,400	22,800	1,960	1,960	717	435
15	778	5,340	39,100	14,600	19,300	4,480	18,800	18,300	1,860	1,770	694	420
16	791	4,820	32,400	30,600	15,300	4,320	18,300	14,800	1,770	1,590	670	400
17	984	5,690	24,000	30,600	13,300	4,480	17,800	11,900	1,680	1,420	647	400
18	1,080	5,690	18,300	48,400	12,300	4,820	16,300	10,300	1,680	1,320	623	420
19	1,420	7,150	14,300	46,800	11,500	5,340	14,300	8,700	1,960	1,200	647	420
20	1,680	7,910	11,500	37,700	10,300	5,690	12,800	7,910	2,630	1,080	944	410
21	1,680	7,150	10,300	29,400	9,100	6,050	11,500	6,780	2,510	1,030	866	450
22	1,400	6,410	10,300	32,400	8,300	9,140	10,300	6,050	2,170	1,140	791	460
23	1,200	6,050	17,300	41,200	7,910	13,800	9,100	5,690	2,060	1,310	742	470
24	1,050	5,160	24,600	39,100	7,150	15,800	8,300	5,160	1,860	1,230	705	490
25	984	4,650	25,200	32,400	6,410	17,800	7,530	4,650	1,770	1,100	658	420
26	931	4,480	23,400	25,200	6,780	21,600	10,300	4,320	1,680	1,010	623	400
27	879	4,320	18,300	23,400	7,910	37,800	12,800	4,320	1,860	1,010	600	470
28	866	4,010	14,800	21,600	9,900	41,200	11,500	4,990	2,390	1,010	589	600
29	840	3,710	11,900	20,400	9,500	34,900	9,900	5,160	3,010	998	600	612
30	866	3,860	10,300	21,600	-------	27,600	8,700	4,650	3,010	970	658	635
31	892	-------	9,100	23,200	-------	25,800	-------	4,010	-------	944	682	-------

Note.—Discharge estimated for periods of ice effect, Feb. 14-25, Dec. 4-6, 1929, Jan. 27 to Feb. 12, Nov. 28, 29, 1930, Jan. 2-26, 1931, and for period of missing gage heights, Sept. 14, 15, 1932.

Monthly discharge, in second-feet, of Allegheny River at Franklin, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	9,500	765	3,060	0.509	0.59
November	28,200	4,650	10,300	1.71	1.91
December	44,700	6,400	14,200	2.36	2.72
January	82,100	3,250	19,000	3.16	3.64
February	40,500	1,900	5,990	.997	1.04
March	55,900	12,900	31,500	5.24	6.04
April	57,300	18,300	29,800	4.96	5.53
May	46,100	11,100	26,000	4.33	4.99
June	9,500	1,970	3,920	.652	.73
July	11,500	1,760	4,560	.759	.88
August	2,300	708	1,050	.175	.20
September	1,970	584	1,020	.170	.19
The year	82,100	584	12,600	2.10	28.46
1929-30					
October	13,300	765	4,250	.707	.82
November	36,300	3,250	10,600	1.76	1.96
December	47,500	4,750	17,700	2.95	3.40
January	58,700	5,000	25,400	4.23	4.88
February	56,600	4,000	14,200	2.36	2.46
March	33,600	11,500	21,000	3.49	4.02
April	33,600	8,700	18,400	3.06	3.41
May	14,800	3,700	6,510	1.08	1.24
June	5,350	2,080	3,030	.504	.56
July	1,970	551	1,140	.190	.22
August	513	335	414	.069	.08
September	708	342	435	.072	.08
The year	58,700	335	10,200	1.70	23.13
1930-31					
October	828	402	515	.086	.10
November	1,030	600	771	.128	.14
December	11,500	1,180	4,320	.719	.83
January	9,500	1,000	2,590	.431	.50
February	12,900	3,100	6,640	1.10	1.14
March	41,200	4,000	12,000	2.00	2.31
April	39,100	6,800	22,600	3.76	4.20
May	27,600	9,500	15,500	2.58	2.97
June	27,600	2,080	8,440	1.40	1.56
July	5,000	1,260	1,910	.318	.37
August	3,700	765	1,730	.288	.33
September	1,340	617	956	.159	.18
The year	41,200	402	6,480	1.08	14.63
1931-32					
October	1,680	682	953	.159	.18
November	7,910	918	3,520	.586	.65
December	39,100	4,320	14,400	2.40	2.77
January	48,400	9,100	25,800	4.29	4.95
February	30,600	6,410	14,700	2.45	2.64
March	41,200	4,320	11,960	1.98	2.28
April	40,500	7,530	18,500	3.08	3.44
May	57,300	4,010	15,100	2.51	2.89
June	3,860	1,680	2,510	.418	.47
July	4,650	944	2,080	.346	.40
August	944	589	754	.125	.14
September	918	400	531	.088	.10
The year	57,300	400	9,230	1.54	20.91

OHIO BASIN—STATION NO. 3

ALLEGHENY RIVER AT KITTANNING

LOCATION.—Chain gage at Market Street Bridge, Kittanning, Armstrong County. Zero of gage is 764.45 feet above mean sea level.

DRAINAGE AREA.—9,010 square miles.

RECORDS AVAILABLE.—August, 1904, to September, 1931 (discontinued).

REMARKS.—Daily records not published after Sept. 30, 1928. The construction of Navigation Dam No. 6, completed Oct. 3, 1928, created backwater and destroyed the stage-discharge relationship at the gaging station. Since the completion of this dam, flashboards have been used intermittently which makes it impossible to obtain a constant rating. The following current-meter discharge measurement was made:

May 22, 1929: Gage height, 13.22 feet; discharge, 48,600 second-feet.

BROKENSTRAW CREEK AT YOUNGSVILLE

LOCATION.—Chain gage at highway bridge at Youngsville, Warren County. Zero of gage is 1,188.92 feet above mean sea level.

DRAINAGE AREA.—290 square miles.

RECORDS AVAILABLE.—October, 1909, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 7,140 second-feet Jan. 19 (gage height, 8.95 feet); minimum, 39 second-feet Sept. 4, 6 (gage height, —0.50 foot).

Maximum discharge during year ending Sept. 30, 1930, 4,580 second-feet Jan. 9, 10 (gage height, 6.4 feet from graph based on gage readings); minimum occurred during August 1-15, not determined owing to lack of gage readings.

Maximum discharge during year ending Sept. 30, 1931, 3,120 second-feet Mar. 28, June 7 (gage height, 4.3 feet from graph based on gage readings); minimum, 27 second-feet Sept. 21, 23, 24, 25 (gage height, —0.65 foot).

Maximum discharge during year ending Sept. 30, 1932 (estimated), 6,280 second-feet May 8 (gage height, 7.6 feet from graph based on gage readings); minimum, 27 second-feet at times in October and November (gage height, —0.65 foot).

1909-1932: Maximum gage height, 12.2 feet Mar. 25, 1913 (discharge not determined); minimum discharge, 27 second-feet at times during September to November, 1931.

REMARKS.—Records poor.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	74	258	3,150	240	240	1,460	1,180	882	266	126	79	46
2	75	216	2,790	335	226	1,120	1,120	774	240	126	69	44
3	60	315	1,600	258	226	1,180	827	3,060	230	106	66	42
4	60	528	882	240	230	1,250	722	3,320	212	106	68	39
5	59	396	774	280	175	1,670	1,740	2,280	205	139	72	43
6	59	296	671	1,250	216	1,250	1,890	1,670	198	139	79	41
7	60	236	528	882	205	1,120	[a]1,500	1,390	202	396	79	56
8	59	233	483	671	202	622	827	1,000	192	376	60	49
9	62	296	335	671	195	671	671	774	172	255	69	60
10	53	255	315	574	195	[a]550	1,120	574	172	335	69	48
11	59	208	315	574	188	439	1,390	528	163	277	59	60
12	53	258	296	528	188	671	1,250	528	157	175	60	49
13	59	574	296	439	175	1,120	1,000	483	166	198	60	59
14	[a]75	574	315	360	205	3,150	671	1,000	166	277	54	62
15	89	483	396	300	188	3,150	622	2,620	166	212	63	60
16	93	355	396	280	157	2,790	827	2,620	154	154	56	49
17	88	296	439	700	185	1,820	882	1,740	151	123	54	86
18	355	277	1,180	3,680	172	1,250	671	1,000	139	111	50	84
19	574	774	1,250	6,640	137	774	528	1,250	137	102	51	63
20	396	1,960	774	4,220	130	1,120	671	1,320	169	98	51	51
21	262	1,820	461	1,600	130	1,600	3,680	1,060	126	91	49	49
22	202	1,320	418	774	130	2,790	3,320	722	100	86	47	48
23	277	882	396	622	130	2,280	1,530	574	[a]95	89	66	49
24	774	671	355	574	130	1,890	774	574	120	77	75	45
25	774	622	355	528	142	1,250	722	528	115	118	54	48
26	671	574	335	418	671	2,120	1,120	461	118	273	49	49
27	528	528	296	335	2,450	1,600	1,120	355	118	182	49	46
28	[a]480	528	315	277	2,280	1,000	940	439	148	137	49	50
29	483	574	315	296	-------	671	1,460	461	172	148	48	49
30	418	1,390	[a]240	255	-------	671	1,320	355	126	111	48	50
31	296	-------	222	244	-------	622	-------	315	-------	115	47	-------

[a] Estimated because of no gage-height record.

Daily discharge, in second feet, of Brokenstraw Creek at Youngsville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	47	182	200	340	190	774	861	267	143	87		40
2	448	636	190	1,380	185	940	1,900	598	148	87		43
3	776	882	185	2,380	190	774	1,770	509	134	78	a40	51
4	368	671	180	1,960	195	671	965	398	119	75		41
5	185	483	175	882	180	574	661	298	113	67		41
6	a135	528	190	528	165	a520	a560	267	109	67		41
7	108	396	400	624	150	a860	509	238	148	72	a35	37
8	102	315	1,390	2,120	140	a2,000	598	224	115	67		36
9	82	270	1,250	3,680	135	1,060	538	193	117	67		36
10	86	251	1,120	3,590	135	a900	793	181	125	64		36
11	77	233	774	2,120	135	a1,700	1,440	a176	224	58		36
12	75	233	418	1,890	140	a1,950	1,450	172	172	53		36
13	68	226	593	2,700	390	a1,200	930	175	121	a55	a35	37
14	77	528	2,040	2,880	774	a1,350	861	298	111	105		a40
15	75	574	2,790	2,200	574	a900	661	298	101	85		5..
16	69	439	1,480	1,530	376	a800	1,740	175	96	72	36	
17	63	464	1,170	774	355	a700	3,210	a170	111	60	36	
18	60	2,510	2,380	622	296	a1,050	3,030	206	113	57	36	a49
19	60	3,000	2,380	396	355	a1,100	1,850	321	187	52	36	
20	49	1,820	1,740	330	1,210	a880	630	424	141	a51	39	
21	60	1,070	722	290	2,200	760	827	827	125	51	37	
22	233	671	439	265	2,040	538	793	424	111	54	36	
23	947	596	380	245	1,180	398	694	275	99	52	37	a41
24	496	350	355	230	1,060	398	598	230	105	52	39	
25	355	320	330	220	2,120	480	568	187	97		48	
26	335	320	310	215	3,150	751	538	193	99		51	
27	240	345	305	215	2,450	930	480	175	105		46	
28	179	528	310	220	1,390	930	346	178	99	a47	37	a57
29	154	396	325	215	-------	630	275	220	92		36	
30	134	226	305	205	-------	726	275	166	80		36	
31	148	-------	305	195	-------	661	-------	166	-------		39	-------
1930-31												
1		a62	838	56	298	793	1,580	760	275	66	60	30
2		a62	480	55	267	598	2,490	538	224	63	43	31
3		a61	371	60	213	480	2,330	480	193	54	83	37
4		60	275	70	178	371	2,330	371	181	54	75	35
5	a48	61	213	92	169	250	2,170	321	164	53	54	31
6		59	329	275	178	298	1,370	275	164	52	52	a30
7		59	830	298	156	213	1,040	246	1,810	52	42	29
8		54	896	234	169	220	793	480	1,690	52	41	29
9		53	760	199	181	227	661	452	1,180	53	a41	29
10		51	480	172	153	193	598	452	630	48	99	29
11		54	480	156	121	187	1,000	398	371	46	141	28
12		60	509	141	143	187	760	398	271	46	128	28
13		64	538	128	a360	181	509	538	206	43	105	28
14		70	371	111	630	187	424	661	213	43	68	29
15	a52	66	193	101	538	234	346	452	206	45	39	29
16		61	128	94	398	267	298	346	196	43	35	46
17		60	119	90	480	250	275	321	159	43	33	57
18		70	100	92	927	271	216	664	141	69	33	31
19		66	90	94	1,040	346	184	630	125	94	31	31
20		61	80	141	930	298	172	568	119	90	31	a30
21		56	75	130	604	538	164	480	a116	85	31	28
22		51	70	125	a520	930	371	371	113	78	29	28
23		52	67	125	424	1,070	346	868	107	67	29	27
24		49	65	123	398	1,370	346	1,210	90	59	29	28
25	a55	51	64	132	398	1,770	898	1,210	77	52	29	27
26		47	94	254	371	1,770	884	1,000	73	a46	29	29
27		45	103	661	346	1,610	1,930	598	73	42	29	43
28		40	67	726	424	2,330	1,690	452	73	41	29	42
29		35	96	598	-------	2,940	1,210	346	72	41	29	33
30		80	81	452	-------	2,410	1,100	321	67	73	a29	29
31		-------	60	371	-------	1,290	-------	267	-------	67	29	-------

a Estimated because of no gage-height record.

Daily discharge, in second feet, of Brokenstraw Creek at Youngsville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	28	28	298	321	965	371	2,090	680	148	106	52	46
2	28	81	298	1,380	793	321	2,090	a538	151	213	51	46
3	27	40	187	1,610	760	275	1,530	398	193	a227	51	46
4	27	39	193	1,210	930	275	1,370	321	164	230	67	45
5	28	36	420	985	1,070	321	1,140	298	169	275	66	46
6	2..	33	321	1,660	965	a276	726	348	148	190	53	47
7	28	29	275	1,770	793	238	568	1,130	136	148	a53	47
8	28	27	187	1,370	793	215	509	5,000	125	184	53	46
9	28	27	169	793	965	200	661	4,480	119	178	52	43
10	27	27	398	598	760	190	861	3,030	119	148	53	43
11	28	28	821	371	1,290	180	930	2,090	117	136	53	a43
12	27	28	1,100	346	1,450	170	1,370	1,370	113	117	52	43
13	28	530	a1,350	346	1,370	165	1,290	1,210	113	92	51	43
14	23	266	2,290	346	793	160	965	827	105	81	51	43
15	23	540	2,070	321	538	155	896	538	97	77	51	43
16	29	320	1,360	1,240	398	160	1,070	424	90	67	51	43
17	43	53	737	a1,400	398	173	965	346	90	61	51	43
18	a54	492	452	3,070	480	169	827	268	77	59	75	a43
19	67	598	346	2,490	346	172	630	227	75	56	70	45
20	51	371	246	1,680	321	a181	538	199	87	53	60	43
21	39	a371	321	948	199	193	424	193	132	53	60	43
22	29	321	456	1,950	180	988	346	a180	125	57	52	43
23	28	298	930	2,170	180	930	298	164	119	56	48	43
24	29	254	1,000	2,010	175	930	a275	153	94	a53	48	42
25	28	275	1,040	1,290	215	1,120	251	156	83	51	48	a43
26	28	275	861	930	250	2,290	792	196	a100	53	48	43
27	27	220	321	1,070	538	a3,500	661	246	105	56	47	43
28	27	196	346	1,000	a630	3,030	480	254	193	53	48	43
29	28	199	275	1,100	424	a1,700	371	a200	156	53	47	59
30	27	216	263	1,530	-------	a900	252	181	113	53	47	59
31	28	-------	202	a1,200	-------	1,610	-------	156	-------	53	48	-------

a Estimated because of no gage-height record.

Note.—Discharge estimated for periods of ice effect, Jan. 4, 5, 14-17, Feb. 20-24, Nov. 24-27, Dec. 1-7, 23-31, 1929, Jan. 1, Jan. 20 to Feb. 13, Nov. 27-30, Dec. 17-24, 1930, Jan. 2, 1931, Feb. 22-25, Mar. 8-16, 1932.

Monthly discharge, in second-feet, of Brokenstraw Creek at Youngsville, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	774	49	246	0.848	0.98
November	1,960	208	593	2.04	2.28
December	3,150	222	674	2.32	2.68
January	6,640	240	937	3.23	3.72
February	2,450	130	354	1.22	1.27
March	5,150	439	1,410	4.86	5.60
April	3,680	528	1,200	4.14	4.62
May	3,320	315	1,120	3.86	4.45
June	266	95	163	.562	.63
July	596	77	169	.583	.67
August	79	47	59.6	.206	.24
September	93	39	54.0	.186	.21
The year	6,640	39	584	2.01	27.35
1929–30					
October	947	47	203	.700	.81
November	3,000	182	642	2.21	2.47
December	2,790	175	811	2.80	3.23
January	3,680	195	1,140	3.93	4.53
February	3,150	135	781	2.69	2.80
March	2,000	398	900	3.10	3.57
April	3,210	275	1,010	3.48	3.88
May	827	166	278	.959	1.11
June	224	80	122	.421	.47
July	105	----------	61.8	.213	.25
August	51	----------	37.9	.131	.15
September	----------	36	44.6	.154	.17
The year	3,680	----------	501	1.73	23.44
1930–31					
October	----------	----------	51.8	.179	.21
November	80	35	57.3	.198	.22
December	896	60	288	.993	1.14
January	726	55	205	.707	.82
February	1,040	121	397	1.37	1.43
March	2,940	181	777	2.68	3.09
April	2,490	164	933	3.22	3.59
May	1,210	246	531	1.83	2.11
June	1,810	67	313	1.08	1.20
July	94	41	56.8	.196	.23
August	141	29	50.0	.172	.20
September	57	27	32.0	.110	.12
The year	2,940	27	307	1.06	14.36
1931–32					
October	67	27	31.7	.109	.13
November	598	27	206	.710	.79
December	2,290	169	633	2.18	2.51
January	3,070	321	1,240	4.28	4.93
February	1,450	175	654	2.26	2.44
March	3,500	155	696	2.40	2.77
April	2,090	251	839	2.89	3.22
May	5,000	153	832	2.87	3.31
June	193	75	122	.421	.47
July	275	51	106	.366	.42
August	75	47	53.5	.184	.21
September	59	42	44.9	.155	.17
The year	5,000	27	456	1.57	21.37

TIONESTA CREEK AT NEBRASKA

LOCATION.—Chain gage at highway bridge at Nebraska, Forest County, one-third mile below mouth of Coon Creek. Zero of gage is 1,079.00 feet above mean sea level.

DRAINAGE AREA.—475 square miles.

RECORDS AVAILABLE.—October, 1909, to September, 1911; August, 1923, to September, 1932. Records prior to September, 1911, are contained in Report of Flood Commission of Pittsburgh, Pa., 1911.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 10,100 second-feet Feb. 27 (gage height, 9.9 feet from graph based on gage readings); minimum discharge, 73 second-feet Oct. 5; minimum gage height, 0.50 foot Sept. 4.

Maximum discharge during year ending Sept. 30, 1930, 8,300 second-feet Nov. 18 (gage height, 9.0 feet from graph based on gage readings); minimum, 32 second-feet Sept. 23, 24 (gage height, 0.23 foot).

Maximum discharge during year ending Sept. 30, 1931, 5,140 second-feet Mar. 29 (gage height, 7.10 feet); minimum, gage height, 0.24 foot, during period of ice effect, Nov. 21, 28 (discharge not determined).

Maximum discharge during year ending Sept. 30, 1932, 11,400 second-feet May 8 (gage height, 10.5 feet from graph based on gage readings); minimum, 28 second-feet Sept. 14 (gage height, 0.16 foot).

1909-1911, 1923-1932: Maximum discharge, 14,300 second-feet Nov. 17, 1927 (gage height, 11.6 feet from graph based on gage readings); minimum, 25 second-feet (revised) Sept. 7-10, 25, 1927.

REMARKS.—Records fair except those for periods of ice effect, which are poor.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	83	216	6,180	300	455	1,610	2,940	1,950	655	290	212	94
2	81	209	3,410	280	455	1,450	2,830	2,130	560	320	190	88
3	78	274	2,330	700	430	1,130	2,130	4,440	560	262	180	82
4	79	760	1,860	500	400	1,530	2,040	3,410	480	225	192	82
5	75	630	1,450	440	260	2,330	3,910	4,170	480	520	180	82
6	84	430	1,610	2,830	338	2,940	4,040	3,650	440	705	160	88
7	87	338	1,610	2,230	320	2,430	2,730	3,290	388	865	160	94
8	87	317	1,130	1,610	300	1,610	2,130	2,530	352	1,610	152	130
9	86	298	975	1,370	280	1,450	1,770	2,040	320	1,130	138	152
10	83	278	900	1,450	280	975	2,130	1,610	335	3,410	130	190
11	78	256	695	1,370	260	975	2,530	1,450	262	2,330	122	160
12	76	298	600	1,130	242	1,210	2,230	1,370	250	1,290	122	122
13	83	430	630	850	240	1,530	2,040	1,860	250	920	115	130
14	87	405	570	550	240	4,440	1,770	3,290	250	1,610	115	200
15	96	338	600	360	260	6,180	1,770	6,670	238	1,050	115	212
16	96	317	540	280	240	6,180	2,730	4,720	250	705	122	170
17	93	317	540	320	240	4,440	2,630	3,530	250	560	108	560
18	242	298	1,860	2,690	240	2,940	2,130	2,530	238	480	100	440
19	570	482	1,610	8,110	260	2,130	1,690	2,730	200	405	108	212
20	242	1,950	1,490	5,430	200	1,950	1,450	2,530	200	370	94	170
21	168	1,450	975	3,170	180	1,770	2,940	2,940	200	305	94	145
22	145	1,210	850	2,330	170	3,170	3,050	2,830	190	290	94	138
23	152	1,050	728	2,130	150	4,170	2,330	2,130	170	262	100	130
24	206	830	600	1,860	150	4,170	1,770	1,770	170	250	130	122
25	405	830	500	1,550	170	3,410	1,770	1,610	352	335	138	115
26	630	728	480	1,290	460	4,040	2,330	1,290	440	388	115	122
27	430	662	510	795	5,730	3,290	1,950	985	250	290	100	115
28	317	600	510	830	2,230	2,430	1,610	920	370	238	100	115
29	359	570	482	760	-------	1,950	2,940	1,370	560	352	94	115
30	338	1,530	382	570	-------	1,770	2,430	1,050	275	335	100	122
31	256	-------	317	510	-------	1,770	-------	810	-------	238	94	-------

Daily discharge, in second-feet, of Tionesta Creek at Nebraska, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	82	584	685	584	298	2,330	798	659	314	92	41	47
2	491	633	685	934	298	2,140	2,070	584	298	108	40	49
3	3,960	859	359	2,530	298	1,690	1,870	516	251	108	40	47
4	1,720	769	559	2,140	282	1,450	1,450	455	221	85	39	42
5	812	769	659	1,370	282	1,140	1,290	436	207	87	39	39
6	475	740	685	1,290	282	950	1,140	418	221	145	38	37
7	382	685	859	1,060	282	1,140	1,140	400	282	180	39	35
8	330	608	2,230	2,220	282	1,610	1,140	418	251	108	38	35
9	282	516	1,870	5,140	282	1,450	990	382	207	80	36	34
10	236	475	1,450	5,290	282	1,290	1,210	330	221	73	35	34
11	207	495	990	3,410	298	1,700	1,450	282	298	69	34	33
12	193	455	859	3,880	382	2,730	1,370	251	251	69	34	32
13	193	436	1,189	7,020	633	2,050	1,210	266	193	68	34	34
14	193	865	2,330	5,890	923	2,050	1,140	251	168	74	34	34
15	193	1,450	2,050	4,170	659	1,610	922	347	156	94	39	33
16	180	1,210	1,610	2,840	584	1,370	1,580	382	156	78	37	34
17	168	1,140	1,900	2,140	538	1,290	3,780	330	221	62	36	36
18	156	6,290	5,540	1,610	561	1,450	3,170	266	221	58	35	34
19	145	5,590	4,720	1,210	659	1,690	3,530	632	236	58	34	34
20	145	3,090	3,410	1,060	828	1,450	2,430	2,290	207	56	34	34
21	145	2,430	2,230	859	1,140	1,210	2,140	1,290	156	55	36	34
22	670	1,870	1,870	712	1,370	990	2,630	990	145	60	35	33
23	3,840	1,530	1,530	584	1,370	828	2,050	769	116	67	39	32
24	1,960	1,210	1,290	455	1,690	769	1,610	633	145	62	45	32
25	1,370	990	990	418	3,180	740	1,450	561	135	61	49	34
26	1,290	923	923	382	6,610	828	1,210	516	116	51	46	51
27	990	828	828	347	4,860	859	990	418	156	48	44	64
28	859	990	769	330	3,060	740	859	436	156	47	42	48
29	659	769	712	330	-------	685	798	455	108	45	38	40
30	561	712	685	314	-------	769	712	400	90	43	36	40
31	561	-------	633	314	-------	740	-------	364	-------	42	47	-------
1930-31												
1	39	63	495	42	73	436	2,820	1,530	633	168	180	56
2	39	52	193	42	69	495	4,040	1,290	495	234	135	88
3	39	50	135	42	67	475	3,290	1,370	382	516	193	311
4	39	50	125	44	65	436	4,440	1,060	364	347	221	236
5	37	48	116	57	65	347	3,780	859	330	236	145	156
6	36	51	248	79	67	282	2,950	798	282	221	125	125
7	34	49	739	79	69	298	2,330	740	1,390	193	104	104
8	37	46	430	67	73	314	1,960	923	2,730	156	92	88
9	40	47	266	57	71	314	1,690	859	1,610	125	98	74
10	40	45	180	50	67	314	1,690	1,610	1,140	145	221	68
11	40	47	145	48	65	236	2,530	2,050	828	207	221	62
12	41	49	135	44	64	236	1,960	1,530	659	156	180	57
13	39	58	145	41	65	298	1,530	1,370	538	125	145	52
14	37	57	116	39	86	266	1,210	1,210	455	105	116	54
15	37	54	108	38	251	298	1,060	990	2,170	105	96	56
16	38	52	57	38	266	214	923	798	1,610	108	83	63
17	58	55	55	41	238	330	828	1,350	1,450	104	75	164
18	62	65	52	44	382	330	769	1,060	923	193	75	145
19	58	62	49	57	990	418	633	923	659	180	168	96
20	51	57	47	62	1,610	418	561	923	561	168	168	74
21	47	50	47	59	1,140	455	495	859	740	249	108	68
22	43	48	57	54	859	712	475	712	516	828	86	64
23	48	47	48	48	740	859	740	1,140	436	475	74	59
24	45	46	47	56	633	1,140	740	1,690	418	347	67	74
25	0	41	48	62	516	1,610	828	1,450	347	236	64	74
26	45	35	50	703	495	1,960	1,760	1,450	330	207	69	125
27	44	30	47	495	475	1,780	3,410	1,210	330	168	67	180
28	57	30	46	538	475	2,550	2,330	990	266	145	71	116
29	64	35	45	847	-------	4,860	2,140	769	221	125	75	90
30	61	48	44	145	-------	3,410	1,870	685	207	227	68	77
31	56	-------	43	93	-------	2,330	-------	685	-------	325	61	-------

Daily discharge, in second-feet, of Tionesta Creek at Nebraska, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	69	77	508	1,000	1,890	484	3,410	935	221	105	44	38
2	65	78	376	2,080	1,490	436	2,950	807	221	135	39	37
3	65	85	283	2,250	1,490	396	2,730	688	406	156	44	34
4	66	78	318	1,890	1,490	418	2,070	633	337	251	44	32
5	66	78	615	1,570	1,340	418	1,730	607	236	236	46	30
6	68	74	556	3,250	1,340	418	1,490	607	221	168	43	32
7	67	66	484	4,580	1,200	376	1,270	1,290	207	125	44	31
8	64	64	356	3,130	1,130	300	1,060	6,890	180	180	45	30
9	67	63	356	2,160	1,130	290	1,200	8,410	156	145	42	31
10	64	65	581	1,650	1,130	280	1,570	5,000	145	108	46	30
11	62	68	919	1,410	1,270	275	1,570	3,650	125	102	52	30
12	56	72	1,500	1,130	1,270	270	1,890	2,730	125	90	48	29
13	59	128	2,270	1,060	1,200	270	1,810	2,160	125	77	44	29
14	62	251	5,290	935	1,060	270	1,570	1,650	135	67	39	28
15	72	180	4,260	2,270	1,000	270	1,340	1,490	125	68	35	34
16	72	168	2,530	3,780	907	280	1,340	1,200	108	67	34	34
17	86	180	1,810	3,730	376	290	1,130	1,060	106	63	33	34
18	83	210	1,490	6,640	524	310	1,060	807	116	59	37	34
19	73	479	1,130	4,120	870	330	935	746	96	52	49	32
20	62	318	1,000	2,630	746	320	870	688	87	51	45	32
21	64	283	870	2,070	660	380	807	607	108	54	44	34
22	62	267	1,080	3,500	580	1,080	688	531	156	86	39	36
23	58	251	2,640	3,720	520	1,570	633	484	116	68	36	36
24	59	221	2,070	3,510	439	1,340	581	418	86	55	34	35
25	64	221	2,340	2,530	688	1,060	581	376	80	50	33	32
26	69	221	2,070	2,070	508	1,830	1,000	337	108	51	31	30
27	61	221	1,650	1,980	531	3,290	1,130	418	168	52	32	40
28	58	193	1,340	1,730	531	2,630	935	396	236	53	34	57
29	56	193	1,130	1,490	484	2,160	807	337	180	55	36	80
30	65	267	1,000	2,420	-------	1,810	807	283	125	52	42	64
31	68	-------	870	2,340	-------	2,500	-------	251	-------	49	40	-------

Note.—Discharge estimated for periods of ice effect, Dec. 22, 24-26, 1928, Jan. 1-5, 13-18, Feb. 4, 5, 7-10, 13-26, Nov. 30 to Dec. 8, 1929, Jan. 21, 22, Jan. 26 to Feb. 21, Nov. 25-30, Dec. 3-5, 18-31, 1930, Jan. 1 to Feb. 19, 1931, Feb. 21-23, Mar. 9-21, 1932, and for period of missing gage heights Mar. 5, 1931.

Monthly discharge, in second-feet, of Tionesta Creek at Nebraska, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	630	75	190	0.400	0.46
November	1,950	209	610	1.28	1.43
December	6,180	317	1,180	2.48	2.86
January	8,110	280	1,570	3.31	3.82
February	5,730	150	546	1.15	1.20
March	6,180	975	2,620	5.52	6.36
April	4,040	1,450	2,360	4.97	5.54
May	6,670	810	2,500	5.26	6.06
June	655	170	331	.697	.78
July	3,410	225	721	1.52	1.75
August	212	94	128	.269	.31
September	560	82	157	.331	.37
The year	8,110	75	1,080	2.27	30.94
1929–30					
October	3,960	82	756	1.59	1.83
November	6,290	436	1,330	2.80	3.12
December	5,540	633	1,530	3.22	3.71
January	7,020	314	1,960	4.13	4.76
February	6,610	282	1,150	2.42	2.52
March	2,730	685	1,350	2.84	3.27
April	3,780	712	1,600	3.37	3.76
May	2,290	251	540	1.14	1.31
June	314	90	193	.406	.45
July	180	42	75.3	.159	.18
August	49	34	38.5	.081	.09
September	64	32	38.2	.080	.09
The year	7,020	32	880	1.85	25.09
1930–31					
October	64	34	45.3	.095	.11
November	65	30	48.9	.103	.11
December	739	48	141	.297	.34
January	538	38	99.8	.210	.24
February	1,610	64	358	.754	.79
March	4,860	236	920	1.94	2.24
April	4,440	475	1,860	3.92	4.37
May	2,050	685	1,130	2.38	2.74
June	2,730	207	767	1.61	1.80
July	828	104	230	.484	.56
August	221	61	118	.248	.29
September	311	52	102	.215	.24
The year	4,860	30	483	1.02	13.83
1931–32					
October	86	56	65.1	.137	.16
November	479	62	171	.360	.40
December	5,290	283	1,410	2.97	3.42
January	6,640	935	2,540	5.35	6.17
February	1,890	376	955	2.01	2.17
March	3,290	270	850	1.79	2.06
April	3,410	581	1,370	2.88	3.21
May	8,410	251	1,500	3.16	3.64
June	406	80	161	.339	.38
July	251	49	94.5	.199	.23
August	52	31	40.5	.085	.10
September	80	28	36.2	.076	.08
The year	8,410	28	768	1.62	22.02

OIL CREEK AT ROUSEVILLE

LOCATION.—Chain gage at highway bridge 1 mile above Rouseville, Venango County, and 1½ miles above former gaging station.

DRAINAGE AREA.—316 square miles.

RECORDS AVAILABLE.—June to September, 1932.

EXTREMES.—Maximum discharge during period, 464 second-feet July 4 (gage height, 3.35 feet); minimum, 26 second-feet Sept. 12, 13 (gage height 1.80 feet).

REMARKS.—Records fair. Records include discharge of Cherry Tree Run. Some regulation at low stages from power operations upstream.

Daily and monthly discharge, in second-feet, 1932.

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	159	154	47	43	16	85	76	36	34
2	159	298	44	36	17	108	72	41	32
3	226	170	55	33	18	79	62	77	32
4	182	272	74	34	19	74	55	79	31
5	145	331	61	38	20	97	56	52	31
6	130	170	44	38	21	104	61	43	32
7	120	135	42	38	22	159	113	41	32
8	106	138	42	33	23	97	97	36	41
9	104	115	42	31	24	69	55	35	35
10	99	95	42	30	25	67	56	34	31
11	59	162	56	29	26	95	55	32	30
12	91	115	47	26	27	120	74	34	35
13	91	89	42	26	28	238	83	37	59
14	93	77	36	34	29	140	69	34	55
15	85	70	36	36	30	89	55	38	46
					31	-------	51	46	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
June	238	67	117	0.370	0.41
July	331	51	112	.354	.41
August	79	32	45.3	.143	.16
September	59	26	35.4	.112	.12

OIL CREEK NEAR ROUSEVILLE

LOCATION.—Chain gage at highway bridge half a mile downstream from Rouseville, Venango County.

DRAINAGE AREA.—330 square miles.

RECORDS AVAILABLE.—October, 1909, to June, 1932 (discontinued).

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 9,500 second-feet Jan. 19 (gage height, 6.2 feet from graph based on gage readings); minimum, 45 second-feet Sept. 6 (gage height, 0.74 foot).

Maximum discharge during year ending Sept. 30, 1930, 5,790 second-feet Nov. 18 (gage height, 4.9 feet from graph based on gage readings); minimum, 23 second-feet at times during August and September (gage height, 0.62 foot).

Maximum discharge during period ending Jan. 31, 1931, 1,430 second-feet Dec. 1 (gage height, 2.7 feet from graph based on gage readings); minimum, 30 second-feet Oct. 3 (gage height, 0.66 foot).

Maximum discharge during period ending May 30, 1932, 8,600 second-feet May 8 (gage height, 5.9 feet from graph based on gage readings); minimum, 37 second-feet at times in October and November (gage height, 0.70 foot).

1909-1932: Maximum discharge, about 12,000 second-feet Mar. 13, 1920 (gage height, 7.1 feet from graph based on gage readings); minimum, that of August and September, 1930.

REMARKS.—Records fair except those for periods of ice effect, which are poor. Daily discharge not published after May 31, 1932. Discharge not determined for Feb. 1, 1931 to Oct. 16, 1931 owing to gage being moved and the lack of a rating for the changed location, and for Nov. 12 to Dec. 20, 1932 owing to no gage-height record. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	63	232	4,560	200	290	1,070	1,840	1,020	344	162	102	58
2	63	193	2,670	200	274	1,070	1,560	1,120	315	197	93	54
3	63	300	1,300	236	269	760	1,120	5,040	284	125	95	52
4	60	547	910	279	246	1,430	1,020	4,100	264	113	102	50
5	63	344	715	289	236	1,840	2,320	2,860	269	404	99	50
6	63	274	586	547	246	1,240	2,150	1,990	269	315	93	45
7	63	252	472	860	223	750	1,300	1,700	236	760	88	60
8	58	193	436	436	218	670	960	1,180	223	715	88	63
9	58	241	372	404	227	670	860	910	218	372	88	75
10	58	201	264	472	218	404	1,180	715	193	715	82	70
11	54	197	264	400	184	436	1,240	628	193	472	88	70
12	54	218	255	320	165	670	1,300	670	176	290	82	68
13	58	508	259	255	218	1,430	960	1,120	169	960	77	70
14	58	404	300	227	184	2,860	810	1,840	201	436	80	90
15	58	310	344	184	151	3,050	860	5,040	169	310	80	72
16	63	259	315	169	120	2,860	1,300	2,860	162	193	72	60
17	96	255	372	372	110	2,150	1,120	1,700	151	162	70	96
18	372	305	1,300	3,650	100	1,120	910	1,070	157	147	68	82
19	305	586	860	8,300	100	810	670	1,990	134	151	65	80
20	140	2,320	628	3,650	80	1,070	670	1,030	134	128	63	63
21	104	1,360	372	1,300	80	1,430	3,440	1,770	131	104	58	60
22	96	860	344	760	80	3,240	2,490	1,300	116	102	58	56
23	176	810	315	670	80	2,860	1,180	960	116	99	63	56
24	255	628	246	472	80	2,320	810	810	137	96	72	54
25	344	586	279	670	110	1,560	960	715	158	154	68	48
26	472	508	255	628	1,070	2,670	1,700	586	151	232	58	52
27	290	472	264	372	1,180	2,150	1,020	508	134	140	58	52
28	264	436	284	372	1,840	1,300	960	508	255	128	54	52
29	372	508	284	404	-------	860	2,150	860	250	184	58	54
30	344	1,180	236	310	-------	910	1,560	508	151	154	60	48
31	284	-------	223	315	-------	860	-------	436	-------	147	58	-------

Daily discharge, in second-feet, of Oil Creek near Rouseville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	48	143	308	379	154	1,020	1,070	362	136	89	34	34
2	120	562	263	1,620	150	1,430	2,090	351	122	80	34	39
3	590	809	254	2,520	169	857	1,240	329	115	73	34	41
4	252	455	244	1,180	165	761	857	298	106	63	34	35
5	122	351	240	662	154	636	670	277	100	63	34	30
6	98	267	244	603	150	548	563	277	132	70	34	28
7	73	240	263	660	146	857	603	254	146	240	30	27
8	70	205	1,410	2,920	143	2,070	653	244	122	83	30	27
9	66	192	1,240	4,090	139	1,430	533	226	103	60	28	23
10	60	165	809	2,690	150	960	556	213	197	52	27	23
11	60	165	571	1,700	139	1,560	1,480	201	303	48	28	23
12	60	184	556	2,310	143	1,920	1,180	184	209	45	27	25
13	66	188	726	4,320	379	1,180	809	180	165	45	27	23
14	60	341	1,390	2,400	1,490	1,360	653	197	122	244	30	27
15	52	503	1,280	2,230	840	857	533	192	109	95	30	41
16	58	345	761	1,430	476	809	1,630	201	106	70	30	41
17	60	362	1,090	857	365	716	3,240	184	112	66	27	41
18	54	4,260	3,050	716	368	1,020	2,180	173	132	73	27	37
19	52	3,240	2,050	435	476	1,070	1,630	205	258	66	25	37
20	50	1,430	974	362	1,430	761	1,120	435	154	60	23	34
21	48	908	716	318	1,840	628	908	282	119	54	23	27
22	292	611	586	282	1,340	462	960	205	98	63	22	27
23	627	469	455	263	857	404	716	188	86	58	34	27
24	126	429	398	235	908	441	636	180	103	54	41	27
25	240	340	362	218	2,060	1,210	578	165	83	50	43	50
26	292	318	329	197	2,480	761	525	146	83	50	39	52
27	188	351	318	188	2,570	620	469	136	122	43	34	54
28	136	362	318	184	1,360	578	422	165	106	41	30	37
29	119	357	318	180	-------	548	379	157	76	39	28	37
30	115	334	323	173	-------	670	373	154	70	37	28	35
31	126	-------	329	165	-------	628	-------	143	-------	35	35	-------

Day	Oct.	Nov.	Dec.	Jan.	Day	Oct.	Nov.	Dec.	Jan.
1930-31									
1	35	63	987	48	16	37	70	103	34
2	34	63	436	45	17	43	70	66	34
3	30	58	298	45	18	56	68	63	41
4	34	58	240	56	19	56	58	58	58
5	34	58	192	63	20	50	54	58	70
6	34	58	385	98	21	45	54	54	58
7	34	73	1,070	86	22	45	52	50	56
8	39	58	716	80	23	45	50	45	56
9	53	60	410	73	24	48	54	43	60
10	58	70	308	58	25	58	50	43	73
11	54	80	235	50	26	58	54	70	165
12	52	89	235	41	27	54	34	66	441
13	43	98	249	37	28	63	39	58	391
14	37	106	201	35	29	66	37	54	282
15	37	89	154	34	30	63	126	52	176
					31	63	-------	50	83

Daily discharge, in second-feet, of Oil Creek near Rouseville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
1931-32								
1	----------	48	----------	354	716	303	1,630	809
2	----------	54	----------	1,550	716	277	1,630	563
3	----------	76	----------	1,120	716	254	1,560	429
4	----------	50	----------	857	960	254	908	385
5	----------	50	----------	1,540	1,120	303	716	351
6	----------	56	----------	1,700	809	258	594	378
7	----------	60	----------	1,120	653	218	482	1,830
8	----------	56	----------	960	716	200	503	6,800
9	----------	52	----------	670	761	190	620	5,010
10	----------	50	----------	578	603	185	1,070	2,660
11	----------	54	----------	455	908	180	1,180	1,770
12	----------	----------	----------	410	1,020	180	1,560	1,240
13	----------	----------	----------	379	670	175	1,070	1,070
14	----------	----------	----------	334	518	175	960	670
15	----------	----------	----------	1,180	410	170	857	594
16	----------	----------	----------	1,840	298	170	960	496
17	76	----------	----------	2,030	469	190	653	441
18	73	----------	----------	4,390	503	190	510	368
19	63	----------	----------	2,210	329	200	448	334
20	54	----------	----------	1,120	334	220	404	292
21	45	----------	201	1,000	249	249	362	277
22	39	----------	330	2,660	240	1,220	345	263
23	37	----------	926	2,460	235	1,300	303	231
24	37	----------	738	2,070	240	1,020	282	209
25	37	----------	761	1,180	263	1,120	1,160	188
26	37	----------	518	908	323	2,380	1,020	184
27	41	----------	334	1,120	510	3,250	908	249
28	41	----------	323	1,020	404	1,600	578	244
29	45	----------	292	962	340	908	469	218
30	39	----------	254	2,120	----------	716	441	188
31	37	----------	226	1,170	----------	716	----------	176

Note.—Discharge estimated for periods of missing gage heights, Jan. 1, 2, Mar. 7, 1929, Jan. 30, 31, Oct. 19, 1931, and for periods of ice effect, Jan. 11, 12, Feb. 16-25, Dec. 2-7, 22-31, 1929, Jan. 1, Jan. 20 to Feb. 13, Dec. 16-31, 1930, Jan. 1-31, 1931, Feb. 22-24, Mar. 8-20, 1932.

Monthly discharge, in second-feet, of Oil Creek near Rouseville, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	472	54	157	0.476	0.55
November	2,320	193	516	1.56	1.74
December	4,560	223	654	1.98	2.28
January	8,300	169	891	2.70	3.11
February	1,840	80	299	.906	.94
March	3,240	404	1,500	4.55	5.25
April	3,440	670	1,350	4.09	4.56
May	5,040	436	1,550	4.70	5.42
June	344	116	195	.591	.66
July	960	96	280	.848	.98
August	102	54	75.5	.229	.26
September	96	45	61.9	.188	.21
The year	8,300	45	631	1.91	25.96

Monthly discharge, in second-feet, of Oil Creek near Rouseville, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	627	48	141	0.427	0.49
November	4,260	143	630	1.91	2.13
December	3,050	240	731	2.22	2.56
January	4,320	165	1,180	3.58	4.13
February	2,570	139	751	2.28	2.37
March	2,070	404	928	2.81	3.24
April	3,240	373	975	2.95	3.29
May	435	136	223	.676	.78
June	303	70	130	.394	.44
July	244	35	71.3	.216	.25
August	43	23	31.0	.094	.11
September	54	23	33.6	.102	.11
The year	4,320	23	483	1.46	19.90
1930-31					
October	66	30	47.1	.143	.16
November	126	34	65.0	.197	.22
December	1,070	43	227	.688	.79
January	441	34	94.4	.286	.33
1931-32					
October 17-31	76	37	46.7	.142	.08
November 1-11	76	48	55.1	167	.07
December 21-31	926	201	446	1.35	.55
January	4,390	334	1,340	4.06	4.68
February	1,120	235	553	1.68	1.81
March	3,250	170	606	1.84	2.12
April	1,630	282	806	2.44	2.72
May	6,800	176	933	2.83	3.26

OHIO BASIN—STATION NO. 8

FRENCH CREEK AT KIMMEYTOWN

LOCATION.—Chain gage at highway bridge, Kimmeytown, Erie County.

DRAINAGE AREA.—207 square miles.

RECORDS AVAILABLE.—May, 1910, to September, 1932.

REMARKS.—Gage readings at this station unreliable and records not published after September 30, 1928. The following current-meter discharge measurements were made:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet		Feet	Second-feet
1929			1931			1932		
May 16	4.82	1,930	Oct. 15	0.87	40.6	Aug. 23	0.62	18.3
May 16	4.79	1,930	1932			Aug. 23	.63	18.8
1930			Jan. 6	4.50	1,520			
Aug. 14	.52	9.0	May 29	1.28	120			
Aug. 14	.52	9.2						

FRENCH CREEK AT SAEGERTOWN

LOCATION.—Chain gage at highway bridge at Saegertown, Crawford County, half a mile above mouth of Woodcock Creek.

DRAINAGE AREA.—586 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 17,000 second-feet Jan. 20 (gage height, 15.9 feet from graph based on gage readings); minimum, 49 second-feet Sept. 10 (gage height, 2.30 feet).

Maximum discharge during year ending Sept. 30, 1930, 9,000 second-feet Jan. 10 (gage height, 10.8 feet from graph based on gage readings); minimum, 26 second-feet Aug. 20, 22 (gage height, 2.16 feet).

Maximum discharge during year ending Sept. 30, 1931, 5,710 second-feet Apr. 3 (gage height, 8.49 feet); minimum, 37 second-feet Aug. 23 (gage height, 2.24 feet).

Maximum discharge during year ending Sept. 30, 1932, 7,220 second-feet May 9 (gage height, 9.52 feet); minimum, 37 second-feet Sept. 25 (gage height, 2.20 feet).

1921-1932: Maximum discharge, that of Jan. 20, 1929; minimum, that of Aug. 20, 22, 1930.

REMARKS.—Records good except those for low and extremely high stages, which are fair, and those for periods of ice effect, which are poor. Regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	166	715	6,110	715	345	5,580	1,950	2,040	715	328	226	74
2	158	585	6,810	780	812	3,610	2,630	1,860	585	283	179	71
3	133	650	4,670	780	780	2,530	1,950	6,950	520	241	149	67
4	133	1,110	2,430	748	780	3,170	1,860	10,200	488	207	130	67
5	116	975	1,860	715	748	4,190	3,500	7,800	455	322	126	60
6	113	780	1,770	1,770	748	3,610	4,550	4,550	520	488	130	62
7	166	650	1,430	2,130	748	2,840	3,170	2,950	488	715	119	67
8	702	585	1,190	1,270	715	1,770	2,040	2,330	422	1,110	109	67
9	166	845	1,040	1,190	715	1,430	1,680	1,680	359	1,350	106	69
10	141	1,110	942	1,270	682	1,350	2,040	1,350	328	1,270	102	53
11	119	845	780	1,300	650	1,270	3,280	1,110	300	618	99	93
12	116	812	812	1,000	618	1,680	2,950	1,110	272	422	88	82
13	119	1,950	645	850	585	2,730	2,630	1,190	278	328	93	85
14	119	2,430	975	650	618	3,950	2,040	1,680	294	272	96	93
15	174	1,550	1,110	550	618	4,800	1,770	4,190	322	306	93	106
16	221	1,190	1,110	550	618	4,800	1,770	4,930	306	283	99	106
17	272	1,270	1,190	700	618	4,310	1,680	3,720	278	231	93	141
18	715	1,430	2,730	3,200	618	2,730	1,350	2,330	252	193	79	149
19	1,510	2,040	2,950	13,400	618	1,950	1,110	2,630	221	166	85	133
20	1,190	4,310	1,950	15,300	650	3,610	1,270	2,950	221	158	77	126
21	845	4,800	1,350	8,100	650	4,550	5,190	2,130	212	137	71	123
22	650	3,830	942	2,630	585	5,060	6,810	1,590	193	133	69	99
23	552	2,840	900	1,860	585	5,190	4,800	1,190	179	119	71	88
24	812	2,230	600	1,510	552	4,190	2,230	1,040	166	119	71	77
25	1,430	1,950	900	1,510	520	3,060	1,680	1,040	236	183	69	67
26	2,130	1,770	845	1,510	2,040	3,610	3,060	910	228	289	74	69
27	1,590	1,510	878	1,270	6,250	3,720	3,320	780	392	390	74	62
28	1,190	1,350	942	1,110	7,510	2,430	2,530	845	359	289	71	71
29	1,190	1,430	975	975	-------	1,680	3,060	1,770	585	272	71	62
30	1,110	2,950	942	845	-------	1,430	2,950	1,350	422	300	69	77
31	845	-------	748	845	-------	1,430	-------	910	-------	306	77	-------

Daily discharge, in second-feet, of French Creek at Saegertown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	66	185	600	1,270	251	2,330	2,430	682	272	150	55	49
2	78	395	550	4,310	240	2,430	4,070	845	235	145	53	55
3	261	1,090	500	6,110	230	2,040	3,830	1,270	219	137	47	78
4	650	812	500	6,250	224	1,590	2,530	812	181	125	47	91
5	488	585	500	3,170	224	1,510	1,770	650	167	121	47	73
6	267	650	500	1,860	224	1,590	1,350	585	171	114	53	62
7	209	585	1,300	1,590	224	1,950	1,430	520	185	167	45	51
8	171	455	3,390	4,550	219	3,950	1,510	488	185	158	33	62
9	145	390	4,440	7,230	219	3,720	1,350	455	176	121	34	60
10	125	328	3,240	8,400	219	2,840	2,230	359	251	104	37	53
11	114	317	2,330	6,110	219	3,610	3,610	322	682	97	39	47
12	111	317	1,770	4,410	390	4,800	3,170	289	650	91	41	41
13	108	328	2,230	6,670	1,400	3,950	2,230	278	455	121	41	41
14	114	552	5,410	7,950	2,800	3,390	1,770	272	328	289	36	39
15	114	1,110	5,840	6,950	2,400	2,730	1,350	328	246	272	37	44
16	114	975	4,670	4,930	1,800	2,130	2,430	390	251	176	37	64
17	108	780	3,210	2,430	1,400	2,040	5,060	520	390	121	37	68
18	108	1,900	5,320	1,590	1,000	3,060	5,060	520	390	108	39	78
19	97	3,830	6,670	975	900	3,390	3,280	585	715	97	34	73
20	97	3,500	5,060	812	2,000	2,330	2,040	1,110	552	84	29	78
21	91	2,230	1,770	715	4,070	1,860	1,510	1,190	390	81	31	71
22	121	1,510	1,110	650	4,670	1,590	1,430	845	289	78	27	66
23	193	1,040	1,000	585	3,170	1,110	1,350	650	219	78	44	58
24	628	910	950	520	2,730	1,040	1,110	488	214	84	34	55
25	520	845	900	455	3,950	1,190	1,040	422	185	71	47	60
26	520	780	845	390	6,390	2,950	1,040	328	162	73	45	81
27	422	780	812	359	6,670	2,730	975	294	190	71	53	137
28	311	1,600	910	328	4,310	1,860	878	272	181	66	41	150
29	261	1,430	942	300	-------	1,680	780	317	171	58	41	118
30	209	650	910	283	-------	1,860	715	328	158	51	39	97
31	181	-------	878	261	-------	2,040	-------	311	-------	60	39	-------
1930–31												
1	91	214	2,530	137	845	1,270	2,360	1,510	682	125	76	55
2	81	246	2,630	132	715	1,350	5,060	1,190	585	104	114	62
3	81	267	1,770	132	618	1,040	5,580	975	488	101	97	73
4	81	240	1,510	137	650	910	5,190	878	422	97	97	78
5	73	205	1,350	162	650	780	4,070	780	359	94	94	81
6	73	195	1,950	246	618	715	2,730	650	306	118	78	78
7	66	181	3,830	650	585	682	2,130	618	975	181	71	84
8	81	167	3,950	520	650	650	1,590	1,270	2,330	128	68	78
9	125	176	3,060	390	585	715	1,350	1,860	2,040	101	68	71
10	108	272	2,040	294	520	650	1,190	1,110	1,270	108	81	60
11	101	294	1,510	246	488	585	1,430	942	878	154	68	47
12	84	272	1,510	246	520	650	1,350	910	650	137	81	49
13	76	359	1,590	267	780	650	1,040	975	488	111	89	47
14	68	359	1,270	235	1,950	715	878	975	390	91	86	51
15	64	300	975	190	1,770	748	748	878	390	94	78	51
16	68	246	682	176	1,590	780	650	682	328	97	68	58
17	81	219	488	162	1,770	780	585	942	289	118	66	58
18	78	224	328	162	2,430	845	552	878	261	132	66	64
19	76	214	261	171	2,730	975	488	748	219	167	62	64
20	94	176	251	209	2,730	1,110	455	878	195	158	58	58
21	101	145	240	190	2,130	1,590	422	730	185	150	49	55
22	94	137	200	181	1,590	2,530	422	682	171	137	53	51
23	97	141	171	176	1,350	3,280	1,110	1,510	171	121	37	47
24	104	132	158	190	1,110	3,500	1,510	2,730	154	114	44	51
25	145	137	154	240	1,040	4,070	1,350	2,330	150	104	41	47
26	158	128	154	390	1,110	4,310	2,040	2,040	137	91	51	68
27	137	121	162	1,430	1,110	3,720	3,950	1,430	154	81	55	78
28	171	114	154	1,510	1,110	3,280	3,170	975	181	84	55	108
29	209	114	150	1,430	-------	4,800	2,330	780	158	71	51	94
30	224	328	145	1,190	-------	5,320	2,040	650	132	73	58	84
31	219	-------	141	1,110	-------	3,390	-------	682	-------	78	58	-------

Daily discharge, in second-feet, of French Creek at Saegertown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	77	100	768	1,100	2,660	836	3,710	1,080	338	141	81	49
2	69	193	701	3,130	1,910	768	3,710	940	301	184	73	49
3	62	249	565	3,470	1,820	668	3,470	734	281	286	81	46
4	60	221	522	3,020	2,290	636	2,490	603	261	343	84	48
5	64	176	1,080	2,590	2,390	701	1,640	546	233	364	100	46
6	64	176	1,470	2,910	1,910	734	1,310	668	219	322	144	46
7	49	176	1,010	3,950	1,550	636	1,080	2,260	197	256	95	50
8	58	159	768	2,910	1,820	580	940	6,480	180	219	78	56
9	62	139	603	1,730	2,190	550	1,080	7,220	171	252	62	49
10	56	127	820	1,230	1,640	530	1,550	6,190	160	223	52	46
11	58	124	1,620	1,010	2,690	520	1,820	3,660	148	242	62	44
12	60	152	2,690	905	3,830	510	2,490	2,000	137	214	65	43
13	69	680	2,190	878	3,710	510	2,490	1,390	133	171	69	46
14	66	878	3,470	905	2,290	500	2,190	1,080	133	141	60	42
15	88	734	3,950	1,230	1,390	500	2,190	870	133	126	65	42
16	82	878	2,490	2,290	940	510	2,800	768	133	110	60	40
17	147	801	1,640	3,440	940	520	2,490	636	133	100	56	46
18	305	905	1,150	5,910	1,230	530	2,190	590	130	92	58	43
19	392	1,390	1,010	5,910	1,010	550	1,820	491	110	89	52	46
20	259	1,080	905	3,730	905	734	1,470	444	100	92	50	43
21	198	1,150	940	2,190	768	668	1,150	414	120	89	52	46
22	185	1,150	1,280	3,830	670	1,130	940	381	137	100	56	43
23	135	1,010	3,070	4,960	610	1,820	768	353	163	110	52	46
24	103	768	3,470	4,310	550	2,090	668	301	148	89	52	43
25	93	905	2,910	3,020	540	2,490	603	301	126	73	52	40
26	90	1,080	2,190	1,820	801	4,310	1,010	565	116	78	49	43
27	100	836	1,390	2,290	1,150	6,190	1,080	768	120	81	49	50
28	100	701	1,010	2,090	1,080	7,070	734	905	160	100	50	50
29	90	636	836	2,090	1,010	5,180	578	668	197	107	54	113
30	93	668	734	3,950	-------	2,690	701	522	163	92	54	123
31	93	-------	603	4,440	-------	2,490	-------	403	-------	84	50	-------

Note.—Discharge estimated for periods of ice effect, Dec. 23–25, 1928, Jan. 11–18, Dec. 1–7, 23–31, 1929, Jan. 20 to Feb. 20, Nov. 26–30, Dec. 17–31, 1930, Jan. 1 to Feb. 16, 1931, Feb. 22–25, Mar. 8–19, 1932.

Monthly discharge, in second-feet, of French Creek at Saegertown, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	2,130	113	595	1.01	1.16
November	4,800	585	1,680	2.87	3.20
December	6,810	748	1,710	2.92	3.37
January	15,300	550	2,290	3.91	4.51
February	7,510	520	1,160	1.98	2.06
March	5,580	1,270	3,170	5.41	6.24
April	6,810	1,110	2,700	4.61	5.14
May	10,200	780	2,620	4.47	5.15
June	715	166	354	.604	.67
July	1,350	119	382	.652	.75
August	226	69	98.9	.169	.19
September	149	53	85.5	.146	.16
The year	15,300	53	1,410	2.41	32.60
1929-30					
October	650	66	226	.386	.44
November	3,830	185	1,030	1.76	1.96
December	6,670	500	2,230	3.81	4.39
January	8,400	261	2,980	5.09	5.87
February	6,670	219	1,880	3.21	3.34
March	4,800	1,040	2,430	4.15	4.78
April	5,060	715	2,110	3.60	4.02
May	1,270	272	540	.922	1.06
June	715	158	295	.503	.56
July	289	51	115	.196	.23
August	55	27	40.7	.069	.08
September	150	39	70.0	.119	.13
The year	8,400	27	1,160	1.98	26.86
1930-31					
October	224	64	107	.183	.21
November	359	114	211	.360	.40
December	3,950	141	1,140	1.95	2.25
January	1,510	132	416	.710	.82
February	2,730	488	1,210	2.06	2.14
March	5,320	585	1,820	3.11	3.58
April	5,580	422	1,940	3.31	3.69
May	2,730	618	1,100	1.88	2.17
June	2,330	132	505	.862	.96
July	167	71	114	.195	.22
August	114	37	68.3	.117	.13
September	103	47	65.0	.111	.12
The year	5,580	37	721	1.23	16.69
1931-32					
October	305	49	111	.189	.22
November	1,390	100	608	1.04	1.16
December	3,950	522	1,540	2.63	3.03
January	5,910	878	2,830	4.83	5.57
February	3,830	540	1,600	2.73	2.94
March	7,070	500	1,550	2.65	3.06
April	3,710	578	1,710	2.92	3.26
May	7,220	301	1,430	2.44	2.81
June	338	100	169	.288	.32
July	364	73	160	.273	.31
August	144	49	65.1	.111	.13
September	123	40	50.6	.086	.10
The year	7,220	40	986	1.68	22.91

FRENCH CREEK AT UTICA

LOCATION.—Chain gage on downstream side of highway bridge at Utica, Venango County. Zero of gage is 1,019.54 feet above mean sea level.
DRAINAGE AREA.—1,022 square miles.
RECORDS AVAILABLE.—August and September, 1932.
EXTREMES.—Maximum discharge during period, 160 second-feet Aug. 8 (gage height, 1.66 feet); minimum, 52 second-feet Sept. 18, 26 (gage height, 1.14 feet).
Maximum stage known, about 15.7 feet.
REMARKS.—Records good. Cost of all equipment, maintenance, and operation of station paid by United States Engineer Office, Pittsburgh, Pa.

Daily and monthly discharge, in second-feet, 1932.

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-------	76	11	103	62	21	75	62
2	-------	69	12	90	60	22	78	60
3	122	66	13	93	60	23	75	76
4	139	67	14	91	67	24	80	75
5	125	78	15	91	66	25	75	57
6	130	71	16	91	67	26	73	54
7	142	67	17	95	60	27	73	69
8	147	64	18	103	54	28	73	99
9	120	66	19	95	57	29	75	76
10	114	64	20	86	59	30	86	82
						31	75	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
August 3-31	147	73	97.1	0.095	0.066
September	99	54	67.0	.10	.07

OHIO BASIN—STATION NO. 11

SUGAR CREEK AT SUGARCREEK

LOCATION.—Chain gage at highway bridge three-fourth mile north of mouth at Sugarcreek, Venango County.
DRAINAGE AREA.—177 square miles.
RECORDS AVAILABLE.—August and September, 1932.
EXTREMES.—Maximum discharge during period, 71 second-feet Sept. 28 (gage height, 1.84 feet); minimum, 13 second-feet Sept. 9, 11, 13, 20 (gage height, 1.40 feet).
REMARKS.—Records good. Cost of all equipment, maintenance, and operation of station paid by United States Engineer Office, Pittsburgh, Pa.

Daily and monthly discharge, in second-feet, 1932.

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-------	18	11	-------	14	21	21	14
2	-------	18	12	-------	17	22	28	15
3	-------	15	13	-------	15	23	28	34
4	42	18	14	-------	20	24	19	39
5	-------	19	15	-------	17	25	18	19
6	-------	18	16	-------	18	26	17	17
7	-------	17	17	-------	14	27	19	19
8	-------	17	18	-------	15	28	21	59
9	-------	15	19	95	57	29	23	35
10	-------	15	20	29	14	30	28	24
						31	22	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
September	59	14	20.1	0.114	0.13

CUSSEWAGO CREEK NEAR MEADVILLE

LOCATION.—Chain gage at highway bridge 4 miles (revised) northwest of Meadville, Crawford County. Zero of gage is 1,071.77 feet above mean sea level.
DRAINAGE AREA.—88 square miles.
RECORDS AVAILABLE.—May, 1910, to September, 1932.
EXTREMES.—Maximum discharge during year ending Sept. 30, 1929 (estimated), 1,800 second-feet Jan. 19 (gage height, 12.69 feet); minimum, 1.0 second-foot Sept. 6 (gage height, 0.55 foot).
Maximum discharge during year ending Sept. 30, 1930, 774 second-feet Jan. 3 (gage height, 10.3 feet from graph based on gage readings); minimum, 0.6 second-foot Sept. 13 (gage height, 0.43 foot).
Maximum discharge during year ending Sept. 30, 1931, 690 second-feet Dec. 8 (gage height, 9.60 feet); minimum, 0.8 second-foot Sept. 24, 25 (gage height, 0.46 foot).
Maximum discharge during year ending Sept. 30, 1932, about 822 second-feet May 9 (gage height, 10.7 feet from graph based on gage readings); minimum, 0.3 second-foot Sept. 25, 26 (gage height, 0.36 foot).
1910-1932: Maximum gage height, 16.00 feet Mar. 25, 1913 (discharge not determined); minimum discharge, that of Sept. 25, 26, 1932.
REMARKS.—Records poor. Slight regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	5.8	49	515	62	60	664	198	270	28	13	7.4	1.2
2	4.8	36	675	60	55	596	395	311	21	10	5.0	1.2
3	4.3	43	618	85	50	526	332	833	18	9.4	4.2	1.2
4	4.0	85	405	60	48	460	242	784	16	7.4	3.7	1.1
5	3.9	102	198	78	46	493	482	675	15	26	3.4	1.1
6	3.9	70	167	90	44	504	629	613	16	60	3.4	1.1
7	3.4	45	132	170	46	438	618	515	16	39	3.2	1.1
8	3.4	34	90	110	55	233	427	290	15	96	2.9	1.1
9	3.7	38	75	90	55	122	182	160	13	167	2.6	1.2
10	4.3	55	62	110	55	102	224	108	12	68	2.4	1.4
11	4.6	45	55	95	50	80	395	80	10	36	2.4	1.8
12	4.5	41	47	75	44	120	416	80	9.4	19	2.4	1.9
13	4.0	132	43	55	40	242	311	102	9.4	14	2.1	2.1
14	4.0	300	60	48	36	374	235	206	11	13	2.4	3.2
15	3.7	215	102	42	34	471	167	427	11	15	2.9	3.9
16	4.0	114	114	38	34	526	182	526	13	16	2.6	3.2
17	5.3	96	120	42	34	526	174	549	15	10	2.5	6.1
18	19	160	270	110	32	504	126	300	11	7.4	2.4	10
19	96	182	438	1,100	30	270	80	232	9.4	6.3	2.1	7.0
20	85	395	405	815	28	395	85	353	14	5	1.9	4.8
21	43	504	167	641	28	560	449	311	14	4.5	1.9	3.6
22	27	583	120	526	26	664	699	190	13	4.0	1.6	2.7
23	20	549	108	249	24	641	595	102	8.4	3.7	1.6	2.4
24	36	438	90	153	24	618	300	75	7.2	3.3	1.6	1.9
25	70	321	75	153	26	549	139	75	9.4	3.3	1.6	1.6
26	146	251	70	160	50	493	300	58	10	12	1.8	1.6
27	132	182	75	150	300	526	427	43	12	8.4	1.4	1.8
28	108	146	96	130	135	493	332	39	18	8.4	1.4	1.9
29	120	153	132	108	-------	224	263	68	26	33	1.2	1.9
30	126	311	114	80	-------	132	416	65	17	36	1.2	2.0
31	90	-------	80	65	-------	120	-------	43	-------	15	1.2	-------

Daily discharge, in second-feet, of Cussewago Creek near Meadville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	2.9	10	88	138	46	439	406	32	9.9	6.5	1.3	1.2
2	3.5	26	68	450	48	342	483	36	8.7	5.9	1.3	1.7
3	17	48	60	738	58	282	527	40	8.0	5.1	1.1	2.3
4	23	38	56	702	78	226	461	28	6.8	4.8	1.3	2.8
5	17	32	54	571	83	217	192	23	6.1	4.8	1.2	4.4
6	12	28	54	312	83	217	99	21	6.1	4.4	1.1	4.0
7	9.1	24	56	184	78	312	152	20	6.5	4.4	1.2	2.6
8	7.2	18	88	415	73	494	342	19	8.0	4.1	1.2	1.8
9	6.1	16	461	702	66	606	342	18	7.6	4.1	1.1	1.2
10	5.6	14	538	714	63	606	384	16	13	4.4	1.0	1.0
11	5.1	15	544	654	64	544	461	13	66	4.0	.9	.9
12	4.8	18	332	594	62	560	395	12	143	3.4	.8	.8
13	4.6	20	219	666	68	606	200	11	56	5.2	.8	.7
14	4.8	52	439	738	184	527	124	11	24	46	.8	.8
15	5.1	73	618	678	244	439	93	16	16	40	.8	.9
16	5.2	64	606	606	253	244	208	19	15	17	1.0	.8
17	4.3	54	472	411	217	176	494	17	44	9.1	1.2	4.9
18	4.6	325	472	176	138	226	642	16	68	6.1	1.0	6.5
19	4.4	461	642	93	160	395	594	19	68	4.6	1.0	3.4
20	4.6	494	642	78	262	384	322	44	68	3.8	1.0	2.1
21	4.6	432	505	66	494	200	131	60	42	3.5	.9	1.5
22	5.1	194	235	58	527	131	105	36	24	3.2	.9	1.1
23	7.2	88	138	52	337	78	99	23	17	3.2	1.0	1.0
24	12	68	93	48	99	68	78	18	13	2.9	2.2	.9
25	18	60	73	44	439	103	64	14	10	2.9	2.1	1.1
26	23	60	68	44	618	362	62	11	8.9	2.6	1.9	2.3
27	19	62	68	44	702	494	54	10	9.7	2.4	1.8	15
28	16	124	73	44	618	450	46	10	10	2.3	1.5	21
29	13	124	88	44	-------	253	41	10	9.1	2.1	1.2	11
30	11	117	105	44	-------	282	36	11	7.6	1.8	1.0	6.3
31	10	-------	99	44	-------	352	-------	10	-------	1.6	1.1	-------
1930-31												
1	4.6	16	336	18	117	88	235	105	68	5.2	2.1	2.1
2	3.5	17	494	18	93	93	472	68	50	4.4	6.3	3.8
3	3.2	20	594	18	78	68	642	60	34	3.8	32	5.1
4	2.3	22	594	19	73	52	642	52	24	3.6	30	5.9
5	2.1	20	450	26	68	44	582	42	21	3.2	14	5.2
6	1.8	18	332	111	68	41	395	35	18	5.9	6.5	4.8
7	1.7	17	161	332	68	38	160	50	68	17	4.1	3.8
8	2.6	17	678	395	78	38	93	217	299	26	3.2	3.2
9	11	19	606	362	124	41	73	373	342	15	2.8	3.2
10	19	35	505	168	131	38	64	272	208	13	3.4	2.6
11	14	62	244	105	88	42	78	176	78	14	5.1	2.3
12	9.5	58	160	73	56	44	83	145	41	12	7.2	2.1
13	6.5	58	160	68	83	52	60	160	28	8.0	5.9	1.7
14	4.8	73	145	62	253	54	48	184	21	6.1	4.1	1.3
15	3.6	58	93	54	292	64	38	124	40	5.4	3.2	1.2
16	3.0	42	68	46	200	83	34	73	62	5.9	2.8	1.3
17	2.3	34	60	42	168	93	29	124	29	7.0	2.3	1.6
18	2.8	30	38	42	226	111	28	229	19	12	2.1	1.5
19	5.8	28	28	54	332	145	24	160	15	13	1.8	1.6
20	7.4	22	19	93	332	192	22	168	13	11	1.7	1.3
21	7.6	19	17	168	253	322	20	131	11	9.5	1.6	1.1
22	8.2	17	17	168	160	439	38	93	8.9	8.5	1.3	1.0
23	8.5	16	17	131	131	505	168	272	8.7	8.0	1.1	1.0
24	8.7	14	17	93	111	560	292	483	8.3	6.1	1.1	.8
25	9.1	13	17	88	99	571	184	538	7.4	4.8	1.1	.8
26	9.7	13	15	305	93	538	244	461	9.7	3.8	1.1	1.9
27	10	13	15	472	93	494	417	200	10	3.4	1.8	3.5
28	12	12	17	538	93	428	494	83	9.5	2.9	2.4	4.0
29	19	12	17	544	-------	373	302	54	7.6	2.6	2.8	3.6
30	20	34	18	428	-------	439	138	40	6.1	2.3	2.9	3.0
31	17	-------	19	235	-------	322	-------	54	-------	2.3	2.3	-------

Daily discharge, in second-feet, of Cussewago Creek near Meadville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	2.3	11	138	122	504	83	255	128	18	8.4	2.4	0.5
2	2.2	28	138	396	417	62	384	112	16	6.7	2.4	.4
3	1.9	88	91	516	262	52	428	66	15	10	2.6	.5
4	1.7	74	70	571	322	48	373	46	15	19	2.8	1.0
5	2.2	41	182	527	406	50	164	40	13	14	2.9	.8
6	3.2	30	322	439	373	52	96	56	12	12	2.6	.7
7	5.1	26	268	439	282	50	73	287	10	10	2.4	.6
8	3.8	35	134	461	262	45	66	690	8.2	12	2.2	.6
9	2.2	41	78	507	362	40	83	762	6.8	12	1.7	.7
10	1.8	36	97	158	332	36	138	630	5.8	8.7	1.6	.5
11	1.8	28	220	105	312	35	244	494	4.9	6.1	1.6	.5
12	1.7	28	362	88	406	35	322	217	4.1	18	1.3	.4
13	1.8	94	439	83	450	35	417	117	4.1	16	1.1	.4
14	2.9	302	483	93	395	35	384	83	4.0	11	1.0	.5
15	3.5	244	494	220	174	34	384	62	4.1	7.0	1.0	.5
16	5.8	168	505	292	78	33	439	50	2.9	5.4	.8	.5
17	11	184	417	417	83	34	439	42	3.6	4.3	.6	.4
18	37	171	199	538	124	37	284	38	4.0	3.4	.7	.4
19	56	273	105	654	317	50	132	32	3.6	2.8	.7	.4
20	35	272	93	606	88	73	83	26	3.8	2.1	.6	.4
21	22	176	105	439	78	102	64	22	4.8	2.2	.5	.4
22	16	160	149	395	68	200	52	20	4.4	4.9	.7	.4
23	12	160	363	472	60	370	41	18	4.3	3.4	.5	.4
24	9.5	117	636	594	55	461	35	16	3.5	2.2	.5	.3
25	7.4	138	642	594	49	538	32	15	3.5	1.8	.5	.3
26	6.1	184	544	450	57	606	107	15	3.8	1.9	.5	.3
27	6.5	145	335	352	108	714	138	25	9.3	2.6	.5	.4
28	6.8	93	140	295	131	678	86	69	8.2	2.8	.5	.7
29	7.6	83	88	362	117	527	52	61	4.4	4.3	.4	1.0
30	8.0	93	78	417	-------	254	57	35	3.8	3.4	.5	2.4
31	8.2	-------	66	571	-------	160	-------	22	-------	2.8	.5	-------

Note.—Discharge estimated for periods of ice effect, Dec. 11, 1928, Jan. 4–18, 26–28, Jan. 31 to Feb. 27, Nov. 29 to Dec. 8, Dec. 24–26, 28,29, 1929, Jan. 19 to Feb. 1, Feb. 4–8, 13–17, Nov. 26–29, Dec. 19–31, 1930, Jan. 1–5, Feb. 1–6, 15–27, 1931, Feb. 23–26, Mar. 8–23, 1932.

Monthly discharge, in second-feet, of Cussewago Creek near Meadville, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	146	3.4	38.4	0.436	0.50
November	583	34	189	2.15	2.40
December	675	43	186	2.11	2.43
January	1,100	38	184	2.09	2.41
February	735	24	74.6	.848	.88
March	664	80	409	4.65	5.36
April	699	80	331	3.76	4.20
May	833	39	274	3.11	3.58
June	28	7.2	13.9	158	.18
July	167	3.3	24.6	.280	.32
August	7.4	1.2	2.53	.029	.03
September	10	1.1	2.57	.029	.03
The year	1,100	1.1	145	1.65	22.32
1929–30					
October	23	2.9	9.35	.106	.12
November	494	10	105	1.19	1.33
December	642	54	260	2.95	3.40
January	738	44	327	3.72	4.29
February	702	46	224	2.55	2.66
March	606	68	342	3.89	4.48
April	642	36	255	2.90	3.24
May	60	10	20.8	.236	.27
June	143	6.1	26.7	.303	.34
July	46	1.6	6.97	.079	.09
August	2.2	.8	1.18	.013	.02
September	21	.7	3.53	.040	.04
The year	738	.7	131	1.50	20.28
1930–31					
October	20	1.7	7.78	.088	.10
November	73	12	27.6	.314	.35
December	678	15	202	2.30	2.65
January	544	18	170	1.93	2.22
February	332	56	141	1.60	1.67
March	571	38	207	2.35	2.71
April	642	20	203	2.31	2.58
May	538	35	169	1.92	2.21
June	342	6.1	52.2	.593	.66
July	26	2.3	7.93	.090	.10
August	32	1.1	5.16	.059	.07
September	5.9	.8	2.54	.029	.03
The year	678	.8	99.6	1.13	15.35
1931–32					
October	56	1.7	9.45	.107	.12
November	302	11	117	1.33	1.48
December	642	66	257	2.92	3.37
January	654	83	389	4.42	5.10
February	594	49	226	2.57	2.77
March	714	33	178	2.02	2.33
April	439	32	195	2.22	2.48
May	762	15	139	1.58	1.82
June	18	2.9	6.96	.079	.09
July	19	1.8	7.14	.081	.09
August	2.9	.5	1.25	.014	.02
September	2.4	.3	.58	.0066	.007
The year	714	.3	127	1.44	19.68

CLARION RIVER NEAR PINEY

LOCATION.—At hydro-electric plant of the Pennsylvania Electric Co. 2½ miles upstream from Piney, Clarion County.
DRAINAGE AREA.—980 square miles.
RECORDS AVAILABLE.—October, 1924, to September, 1932.
REMARKS.—Discharge computed from power-house records corrected for changes in storage. The record is furnished by the Pennsylvania Electric Co.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	62	515	5,850	716	1,070	4,260	2,930	4,050	2,820	104	350	62
2	552	544	5,380	546	1,070	4,370	2,780	4,230	62	152	360	62
3	62	922	4,050	592	80	2,080	3,390	5,580	1,380	198	345	340
4	62	279	4,000	1,440	1,090	3,850	3,320	5,690	900	135	62	62
5	567	862	3,170	942	875	4,650	4,980	4,170	1,070	514	139	442
6	62	728	2,250	1,830	1,080	6,090	6,900	5,690	878	815	221	831
7	62	578	2,820	3,400	1,000	4,930	5,190	5,240	991	843	195	857
8	62	976	2,760	2,170	1,040	4,880	4,400	4,280	1,070	4,280	127	62
9	62	578	3,530	1,500	992	4,170	4,270	3,700	62	3,120	294	856
10	62	601	1,540	2,690	62	662	4,240	3,500	555	5,800	281	1,630
11	62	62	1,460	2,740	569	1,900	4,390	3,680	576	7,220	62	1,310
12	62	611	1,470	2,420	124	2,670	3,870	296	575	4,560	248	1,120
13	62	829	1,410	283	578	4,360	4,400	2,100	619	3,940	314	1,510
14	62	887	1,820	604	567	8,210	2,000	3,820	640	773	67	744
15	62	776	1,780	573	567	12,000	4,030	8,030	469	3,230	94	62
16	361	553	62	580	671	11,800	5,340	7,060	62	1,670	133	62
17	62	899	1,020	1,640	62	9,160	5,720	5,720	103	1,360	62	752
18	866	396	2,360	4,860	606	6,320	5,580	5,230	206	1,360	62	410
19	853	1,280	2,300	14,100	593	4,900	4,480	4,230	613	895	62	130
20	1,690	2,710	1,860	9,770	600	4,120	5,190	3,810	108	1,120	185	62
21	62	2,660	1,960	6,180	593	3,780	3,640	4,500	233	90	62	62
22	62	1,940	1,160	4,140	548	4,250	5,070	5,530	613	742	62	62
23	429	1,950	357	3,680	62	5,700	4,880	5,190	364	632	210	62
24	62	2,120	1,880	3,580	62	7,130	3,550	4,440	268	548	264	101
25	62	379	190	3,130	1,020	6,490	4,380	4,100	1,110	728	62	62
26	1,370	1,520	1,230	2,700	3,880	6,190	5,430	1,080	519	718	275	62
27	1,150	1,260	1,270	375	6,160	6,180	5,370	2,580	62	933	214	153
28	62	1,810	1,260	1,940	6,680	5,160	3,610	2,610	1,450	126	62	62
29	502	309	1,190	1,970	-------	4,210	4,660	5,540	2,680	378	62	199
30	346	2,540	255	862	-------	4,770	4,890	1,810	62	318	309	62
31	548	-------	1,220	598	-------	1,640	-------	2,290	-------	635	245	-------
1929–30												
1	62	1,360	62	1,200	885	5,730	1,510	1,290	132	277	62	62
2	385	1,780	392	2,960	896	4,460	2,580	1,810	417	417	169	64
3	4,220	544	870	4,830	1,220	4,030	3,290	905	576	411	62	62
4	4,060	2,050	849	4,840	946	3,280	2,940	226	352	109	62	62
5	4,210	1,360	1,480	839	694	3,140	2,820	1,040	314	527	206	62
6	112	1,500	1,430	2,230	1,060	3,660	609	937	386	62	62	62
7	1,170	1,380	975	2,430	1,160	3,780	2,910	933	887	1,170	62	62
8	1,280	1,440	1,150	3,270	576	4,150	2,660	808	165	685	62	62
9	1,120	1,440	3,370	6,050	62	801	2,080	590	431	350	165	62
10	1,160	62	3,080	7,430	752	2,400	2,000	738	1,120	289	62	81
11	1,020	1,230	1,900	6,180	668	4,230	2,390	107	381	62	62	62
12	261	1,120	2,120	6,500	800	4,980	3,130	849	409	580	186	62
13	62	979	3,650	11,700	799	4,390	453	635	356	62	62	62
14	993	1,800	5,230	10,100	905	4,830	2,100	472	692	366	62	62
15	1,150	3,140	1,760	7,600	1,120	4,670	2,180	420	62	165	62	62
16	990	4,560	2,680	6,020	62	278	2,900	707	407	62	62	230
17	961	1,040	4,060	5,230	501	2,800	5,060	1,130	687	62	62	62
18	69	5,590	5,520	4,340	766	3,430	5,700	181	388	62	62	62
19	390	7,030	5,620	1,300	911	3,330	7,370	2,170	486	462	184	62
20	62	5,710	6,400	2,020	1,030	2,220	6,100	5,120	460	111	62	62
21	866	4,470	5,650	2,300	1,260	2,460	5,530	2,910	899	139	62	62
22	1,060	4,130	3,460	1,740	2,160	2,530	5,230	2,100	103	62	62	62
23	2,420	4,340	3,340	1,630	653	73	3,540	1,940	463	62	258	233
24	3,020	561	3,760	756	2,530	1,790	3,170	2,190	446	62	62	62
25	2,320	1,750	633	1,180	5,430	1,910	3,840	268	289	62	62	62
26	2,790	2,200	2,820	247	9,150	1,950	2,740	1,220	293	433	185	62
27	405	2,820	3,140	1,060	9,880	2,210	495	1,020	380	62	62	62
28	1,180	315	2,670	1,360	6,660	2,210	2,440	1,530	699	62	62	62
29	1,240	1,880	62	660	-------	2,010	1,630	1,720	207	198	62	62
30	1,240	1,200	640	931	-------	62	815	157	349	62	62	290
31	1,250	-------	1,250	768	-------	1,240	-------	1,220	-------	62	214	-------

Daily discharge, in second-feet, of Clarion River near Piney, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	62	62	62	62	247	405	5,100	3,190	1,980	391	684	62
2	62	62	247	62	317	805	5,530	2,520	1,470	355	62	62
3	62	62	509	62	268	834	5,320	1,170	753	537	397	62
4	78	243	141	62	278	805	6,710	2,150	730	62	536	62
5	62	62	262	76	206	644	6,600	1,720	614	62	427	62
6	62	62	877	62	229	531	5,500	1,580	1,400	428	332	62
7	258	83	413	62	371	457	4,470	1,550	2,740	484	260	62
8	89	62	601	62	62	257	4,230	3,690	8,360	308	425	62
9	62	62	396	62	313	548	3,940	3,470	6,360	140	243	62
10	62	62	471	62	254	555	3,980	418	4,530	802	2,790	62
11	62	62	77	62	62	401	4,180	2,410	4,300	544	2,610	62
12	62	461	727	62	62	371	1,400	2,560	2,640	62	2,730	62
13	62	392	680	62	220	558	2,280	2,630	1,540	302	2,120	62
14	236	437	457	62	723	743	2,090	3,360	483	223	666	62
15	62	646	565	62	62	62	2,260	4,170	2,670	62	617	62
16	62	291	62	62	646	562	2,040	3,460	2,320	62	260	62
17	62	772	62	62	904	121	1,450	1,450	2,260	62	361	62
18	62	931	62	62	897	624	766	2,880	1,150	1,080	273	134
19	62	567	62	62	702	1,260	232	2,910	644	62	254	62
20	62	62	62	62	2,180	1,130	987	2,770	1,450	475	436	62
21	247	62	62	62	1,840	986	961	3,230	102	1,890	281	62
22	62	62	62	62	62	632	1,310	3,520	838	1,610	398	62
23	62	62	62	62	445	1,690	1,250	2,440	861	1,150	238	76
24	62	62	62	62	865	2,420	1,400	1,130	722	2,070	202	62
25	62	62	62	62	808	3,460	1,380	2,540	626	479	245	62
26	62	62	62	62	645	3,290	2,930	3,020	679	62	62	371
27	62	62	62	62	687	2,910	5,140	3,370	750	343	62	62
28	303	62	62	62	990	3,170	3,060	3,540	62	281	62	228
29	62	62	62	62	-------	4,890	4,110	2,210	418	369	62	76
30	62	62	62	62	-------	6,300	3,280	212	375	370	62	300
31	62	-------	62	62	-------	4,680	-------	382	-------	422	62	-------
1931-32												
1	298	62	1,000	1,170	3,280	899	5,600	364	481	579	62	61
2	164	62	863	3,120	3,180	686	6,230	1,080	542	1,030	62	264
3	311	291	662	2,310	2,630	820	5,420	1,070	666	62	255	214
4	62	62	1,380	2,420	3,070	935	4,140	970	947	795	62	62
5	274	62	1,880	2,300	3,640	889	3,730	846	215	1,490	62	62
6	62	62	459	4,360	2,600	490	2,940	857	581	938	275	175
7	64	263	787	6,670	1,480	746	2,610	2,120	438	1,130	62	62
8	303	239	801	5,840	1,800	347	2,280	3,100	426	470	62	62
9	62	62	1,190	4,950	1,660	362	3,320	6,860	322	969	295	62
10	410	291	1,410	3,490	2,120	653	2,960	5,860	405	200	62	62
11	62	62	2,330	2,800	2,480	438	3,390	5,860	426	365	62	62
12	62	62	3,230	2,400	3,560	1,060	3,340	5,650	157	452	286	62
13	275	62	3,350	1,700	2,570	133	3,070	4,680	265	384	62	101
14	306	339	11,200	2,180	1,740	707	3,030	4,190	286	322	62	62
15	62	270	8,920	4,440	1,940	461	2,650	2,860	389	317	62	62
16	62	62	5,880	7,340	1,750	501	2,850	1,960	431	347	252	62
17	465	300	5,120	6,840	1,920	854	1,830	2,110	391	62	62	62
18	62	174	4,350	14,200	1,880	251	1,770	1,710	718	231	62	62
19	62	474	3,920	8,200	2,030	1,140	1,890	1,470	62	236	62	62
20	314	405	62	6,310	2,000	399	1,320	1,570	371	222	62	176
21	62	853	1,850	5,620	409	917	1,540	1,590	397	62	62	62
22	62	355	3,210	6,110	1,060	2,460	1,320	62	548	479	62	62
23	145	360	5,280	6,710	1,140	2,290	1,350	1,080	331	528	278	62
24	311	526	5,430	7,010	899	2,240	617	792	383	62	62	62
25	62	807	4,980	5,580	1,030	2,060	1,310	625	381	62	62	62
26	62	310	4,400	4,410	1,100	3,460	1,370	894	62	242	62	62
27	201	320	3,410	4,330	1,630	4,060	1,600	1,100	556	237	62	62
28	353	746	2,240	3,350	62	2,910	1,350	1,210	645	282	62	62
29	62	294	2,840	3,750	796	3,310	969	236	755	198	62	62
30	62	600	2,850	4,830	-------	3,310	1,680	62	653	546	279	307
31	248	-------	2,490	3,410	-------	4,840	-------	199	-------	62	62	-------

Monthly discharge, in second-feet, of Clarion River near Piney, 1928-1932.

Month	Observed			Corrected for storage		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	1,690	62	336	344	0.351	0.40
November	2,710	62	1,070	1,050	1.07	1.19
December	5,850	62	2,030	1,910	1.95	2.25
January	14,100	283	2,660	2,690	2.74	3.16
February	6,680	62	1,150	1,170	1.19	1.24
March	12,000	662	5,190	5,160	5.27	6.08
April	6,900	2,000	4,430	4,480	4.57	5.10
May	8,030	296	4,190	4,180	4.27	4.92
June	2,820	62	704	678	.692	.77
July	7,220	90	1,550	1,580	1.61	1.86
August	360	62	177	183	.187	.22
September	1,630	62	408	282	.288	.32
The year	14,100	62	2,000	1,990	2.03	27.51
1929-30						
October	4,220	62	1,340	1,450	1.48	1.71
November	7,030	62	2,290	2,270	2.32	2.59
December	6,400	62	2,580	2,600	2.65	3.06
January	11,700	247	3,540	3,560	3.63	4.18
February	9,880	62	1,910	1,910	1.95	2.03
March	5,730	62	2,870	2,850	2.91	3.36
April	7,370	453	3,010	3,010	3.07	3.42
May	5,120	107	1,200	1,190	1.21	1.40
June	1,120	62	441	471	.481	.54
July	1,170	62	244	245	.250	.29
August	258	62	96.5	88.3	.090	.10
September	290	62	81.6	87.3	.089	.10
The year	11,700	62	1,630	1,640	1.67	22.78
1930-31						
October	303	62	89.1	90.7	.093	.11
November	931	62	202	102	.104	.12
December	877	62	242	182	.186	.21
January	76	62	62.5	189	.193	.22
February	2,180	62	548	575	.587	.61
March	6,300	62	1,490	1,480	1.51	1.74
April	6,710	232	3,120	3,120	3.19	3.56
May	4,170	212	2,440	2,480	2.53	2.92
June	8,360	62	1,740	1,790	1.83	2.04
July	2,070	62	502	508	.518	.60
August	2,790	62	585	404	.412	.48
September	371	62	89.1	284	.290	.32
The year	8,360	62	930	930	.949	12.93
1931-32						
October	465	62	173	168	.166	.19
November	853	62	295	292	.298	.33
December	11,200	62	3,150	3,110	3.17	3.66
January	14,200	1,170	4,780	4,830	4.93	5.68
February	3,640	62	1,910	1,910	1.95	2.10
March	4,840	133	1,440	1,410	1.44	1.66
April	6,230	617	2,580	2,590	2.64	2.94
May	6,860	62	2,030	2,390	2.44	2.81
June	947	62	441	432	.441	.49
July	1,490	62	431	431	.440	.51
August	295	62	110	118	.120	.14
September	307	61	90.8	88.1	.090	.10
The year	14,200	61	1,460	1,460	1.49	20.61

REDBANK CREEK AT SAINT CHARLES

LOCATION.—Chain gage at industrial railroad bridge at Saint Charles, Clarion County. Zero of gage is 976.24 feet above mean sea level.

DRAINAGE AREA.—540 square miles.

RECORDS AVAILABLE.—October, 1909, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 8,850 second-feet Jan. 19 (gage height, 7.60 feet); minimum, 37 second-feet Sept. 6 (gage height, 0.92 foot).

Maximum discharge during year ending Sept. 30, 1930, 8,850 second-feet Nov. 17 (gage height, 7.6 feet from graph based on gage readings); minimum, 23 second-feet Aug. 2, 3, 4, 5 (gage height, 0.80 foot).

Maximum discharge during year ending Sept. 30, 1931, 5,850 second-feet Apr. 4 (gage height, 6.25 feet); minimum, 23 second-feet Oct. 17 (gage height, 0.80 foot).

Maximum discharge during year ending Sept. 30, 1932, 11,000 second-feet Jan. 18 (gage height, 8.50 feet); minimum, 32 second-feet at times in September (gage height, 0.88 foot).

1909-1932: Maximum discharge, about 21,000 second-feet Dec. 14, 1927; maximum gage height, 14.0 feet, affected by ice, Mar. 12, 1920; minimum discharge, 10 second-feet Aug. 9, 1910 (gage height, 0.71 foot).

REMARKS.—Records fair except those for periods of ice effect, which are poor. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	69	166	4,670	242	438	3,930	1,230	1,790	1,140	291	73	56
2	69	145	4,110	305	410	3,410	1,140	1,790	1,050	252	69	45
3	64	170	3,090	319	385	2,930	1,050	3,410	970	221	73	51
4	69	182	2,050	342	385	2,930	970	2,930	826	214	84	59
5	78	173	1,440	438	360	4,670	5,450	2,330	576	206	71	47
6	73	182	1,230	1,790	342	3,930	4,670	2,050	465	410	91	38
7	62	170	970	1,440	332	2,780	3,410	2,050	385	385	71	51
8	66	189	696	1,050	360	1,550	2,190	2,930	323	576	75	47
9	56	162	606	895	385	860	1,920	2,930	268	606	66	41
10	62	192	548	728	360	860	1,330	2,330	240	520	73	51
11	56	214	492	970	309	860	2,190	1,790	199	728	80	62
12	59	228	492	932	240	970	2,630	1,330	173	1,440	93	77
13	50	351	548	548	203	1,920	1,920	1,140	176	2,330	75	91
14	59	438	520	385	210	3,930	1,550	1,790	157	3,250	68	86
15	71	492	548	360	192	4,290	1,790	5,050	142	2,050	73	71
16	71	664	548	400	196	4,290	2,630	4,480	139	1,230	69	91
17	64	664	520	600	236	3,580	3,580	3,580	136	860	71	148
18	59	664	826	3,580	291	2,630	3,580	3,250	139	606	73	142
19	192	793	1,330	8,410	252	1,790	2,630	3,950	139	465	61	120
20	360	1,790	932	6,900	232	1,330	1,920	3,090	139	314	45	100
21	236	2,050	576	3,250	224	1,330	2,190	3,090	142	199	54	82
22	173	1,330	548	1,920	200	1,330	2,930	2,480	145	157	47	68
23	142	895	520	1,550	200	2,230	2,330	1,920	136	133	75	54
24	114	728	492	1,230	200	2,630	1,550	1,550	130	114	73	59
25	104	664	465	1,550	220	2,480	1,440	1,230	410	127	77	53
26	130	576	410	1,330	6,060	2,630	3,580	1,050	305	163	69	68
27	151	520	438	520	7,110	2,330	2,930	895	244	196	77	82
28	176	465	410	492	5,050	1,920	2,050	826	360	157	66	73
29	203	438	351	576	-------	1,440	2,050	1,790	465	120	62	75
30	196	696	360	548	-------	1,550	2,330	1,670	410	91	61	125
31	173	-------	305	492	-------	1,330	-------	1,140	-------	77	50	-------

Daily discharge, in second-feet, of Redbank Creek at Saint Charles, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	93	606	380	635	236	2,630	1,230	520	224	107	33	41
2	409	635	350	1,140	228	2,930	1,140	492	206	97	25	44
3	3,230	793	340	2,940	224	2,630	970	438	179	86	24	40
4	1,550	1,050	350	2,330	221	1,670	826	355	151	82	24	41
5	760	895	360	1,440	214	1,670	760	319	139	78	25	41
6	548	635	410	1,140	210	1,440	635	314	157	405	26	34
7	410	606	460	1,230	210	1,550	760	319	163	2,930	28	35
8	296	575	2,860	1,330	210	1,440	970	277	173	1,440	35	54
9	236	492	1,790	1,920	210	1,330	1,140	248	151	548	37	59
10	199	438	1,140	3,090	217	1,440	826	217	179	296	35	54
11	176	410	895	2,630	228	1,790	728	224	248	217	32	51
12	182	385	895	3,250	314	2,780	728	210	232	130	32	54
13	179	360	970	6,070	465	2,190	728	210	192	102	30	51
14	182	410	1,230	5,850	635	1,670	664	189	136	148	32	50
15	166	664	1,230	4,290	860	1,440	606	273	107	196	32	42
16	166	1,790	895	2,780	760	1,230	696	252	117	160	33	42
17	136	5,940	1,100	1,790	635	895	2,330	210	97	133	32	48
18	130	6,900	3,480	1,330	520	970	2,780	236	346	93	37	42
19	117	4,670	3,090	895	410	1,230	4,550	465	332	68	35	51
20	107	2,930	2,330	696	520	1,050	4,110	1,140	286	69	32	42
21	109	2,050	2,050	575	606	895	2,050	932	236	69	33	40
22	360	1,550	1,550	440	696	760	2,530	625	199	84	31	37
23	4,120	1,050	1,140	355	793	635	1,790	465	170	82	33	35
24	2,430	970	932	515	1,120	576	1,330	410	142	95	38	37
25	1,790	793	793	270	4,640	548	1,140	385	130	95	34	38
26	970	664	728	270	7,110	576	970	346	130	78	37	50
27	826	664	696	270	5,850	606	860	309	122	77	42	42
28	606	760	664	270	3,930	606	696	296	117	68	48	51
29	492	635	606	255	-------	606	664	282	107	62	47	64
30	410	385	606	250	-------	664	606	256	100	68	38	69
31	520	-------	576	250	-------	728	-------	248	-------	42	40	-------
1930–31												
1	51	61	42	28	130	355	1,720	932	728	291	122	68
2	48	62	48	27	117	328	4,050	793	548	236	112	246
3	45	71	61	28	104	286	3,470	696	465	210	114	657
4	42	61	75	34	100	260	5,850	606	385	189	196	360
5	48	47	86	51	93	248	5,250	520	355	214	125	282
6	44	44	107	48	86	217	3,930	465	412	189	107	224
7	42	44	136	45	82	196	2,780	410	4,560	154	82	145
8	42	40	173	41	89	182	1,790	520	5,050	133	82	120
9	37	37	170	38	89	173	1,230	576	2,930	120	112	104
10	42	47	139	35	100	176	860	760	1,550	117	360	93
11	47	45	127	34	117	157	860	728	1,050	189	664	82
12	50	51	117	33	145	163	860	1,230	793	163	438	71
13	40	56	104	33	576	176	826	1,440	635	136	248	71
14	30	59	97	32	728	192	760	4,540	548	114	179	71
15	27	61	93	32	230	244	696	2,930	1,170	97	139	86
16	27	53	82	32	232	273	606	2,480	826	95	117	120
17	25	62	73	31	268	323	465	2,330	606	91	100	100
18	28	62	59	30	492	385	438	2,190	492	360	85	122
19	27	54	56	28	970	410	385	1,550	465	277	148	125
20	28	56	48	28	970	492	346	1,230	314	244	133	151
21	37	59	48	28	970	548	296	970	282	520	148	654
22	35	53	48	27	826	606	273	860	342	385	120	314
23	38	53	48	27	664	664	410	970	342	438	80	214
24	40	53	49	31	576	728	492	1,440	465	410	82	166
25	35	47	41	35	465	826	606	1,670	337	314	75	176
26	37	50	40	56	438	1,230	902	1,440	296	217	95	909
27	41	40	37	78	410	1,230	2,840	1,230	291	163	82	664
28	48	34	34	117	385	1,270	2,370	895	244	151	145	410
29	56	32	33	160	-------	3,250	1,230	760	203	114	136	214
30	59	34	32	166	-------	2,480	932	606	170	114	112	221
31	53	-------	31	145	-------	1,790	-------	696	-------	133	95	-------

Daily discharge, in second-feet, of Redbank Creek at Saint Charles, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	179	77	1,200	686	2,610	339	4,000	312	118	262	113	54
2	154	85	898	654	1,340	317	3,500	330	143	343	111	70
3	140	81	530	895	1,240	317	3,410	312	179	442	320	72
4	121	77	470	1,640	1,240	339	2,910	291	189	845	330	56
5	110	79	789	1,560	1,290	304	1,340	264	206	1,290	213	50
6	166	74	720	2,290	1,150	321	1,200	287	189	848	154	46
7	113	74	530	3,580	1,060	305	898	312	192	530	148	49
8	108	77	376	2,920	1,020	295	824	562	154	502	103	43
9	126	68	399	2,610	1,200	285	861	1,190	131	476	87	40
10	113	70	559	1,800	1,100	280	1,290	2,050	115	343	85	40
11	113	66	974	976	1,060	275	1,920	2,320	105	291	87	38
12	101	72	2,330	861	1,060	270	2,050	1,920	113	227	83	35
13	96	113	3,920	720	937	265	1,800	1,680	108	202	74	36
14	92	137	7,000	1,730	789	260	1,450	1,450	118	196	74	40
15	98	123	5,050	2,460	720	260	1,240	1,150	115	151	70	44
16	94	115	3,260	1,670	590	265	1,100	789	140	148	50	43
17	115	110	1,470	3,490	654	290	937	654	160	143	54	44
18	121	126	831	9,450	754	305	789	502	432	128	61	43
19	110	148	399	5,040	654	310	654	424	317	113	61	40
20	110	157	530	3,240	559	320	590	424	186	101	66	37
21	94	157	720	2,320	502	449	559	376	224	101	61	33
22	85	296	761	3,930	502	1,290	530	343	295	101	56	34
23	81	424	1,930	4,580	424	1,560	502	291	291	115	50	33
24	85	339	2,180	4,110	376	1,240	476	266	202	115	47	34
25	77	283	3,250	3,240	352	976	424	258	137	123	46	37
26	74	270	2,050	2,460	399	958	502	227	134	92	49	32
27	70	231	1,450	1,920	399	1,660	449	186	363	106	46	39
28	75	239	1,290	1,560	399	1,560	376	163	1,290	560	47	54
29	72	262	1,150	1,340	399	1,340	352	170	687	301	46	40
30	77	612	937	2,260	-------	1,340	308	170	376	241	56	90
31	77	-------	654	2,610	-------	2,050	-------	128	-------	188	57	-------

Note.—Discharge estimated for periods of ice effect, Jan. 15-17, Feb. 22-25, Dec. 1-7, 1929, Jan. 21 to Feb. 14, Nov. 28 to Dec. 8, Dec. 16-31, 1930, Jan. 1 to Feb. 13, 1931, Mar. 7-21, 1932, and for periods of missing gage-height record, Apr. 1, 2, 1932.

Monthly discharge, in second-feet, of Redbank Creek at Saint Charles, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	360	50	113	0.209	0.24
November	2,050	145	546	1.01	1.13
December	4,670	305	1,000	1.85	2.13
January	8,410	305	1,430	2.65	3.06
February	7,110	192	906	1.68	1.75
March	4,290	860	2,410	4.46	5.14
April	5,450	970	2,370	4.39	4.90
May	5,050	826	2,310	4.28	4.93
June	1,140	130	351	.650	.73
July	3,250	77	596	1.10	1.27
August	93	45	69.8	.129	.15
September	148	38	73.8	.137	.15
The year	8,410	38	1,020	1.89	25.58

Monthly discharge, in second-feet, of Redbank Creek at Saint Charles, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	4,120	93	707	1.31	1.51
November	6,900	260	1,360	2.52	2.81
December	3,480	340	1,130	2.09	2.41
January	6,070	250	1,620	3.00	3.46
February	7,110	210	1,150	2.13	2.24
March	2,930	548	1,330	2.46	2.84
April	4,550	606	1,330	2.46	2.74
May	1,140	189	370	.685	.79
June	346	97	176	.326	.36
July	2,930	42	265	.491	.57
August	48	24	33.5	.062	.07
September	69	34	46.0	.085	.09
The year	7,110	24	790	1.46	19.89
1930-31					
October	59	25	40.3	.075	.09
November	71	32	50.9	.094	.10
December	173	31	75.3	.139	.16
January	166	27	50.3	.093	.11
February	970	82	373	.691	.72
March	3,250	157	641	1.19	1.37
April	5,850	273	1,580	2.93	3.27
May	4,540	410	1,240	2.30	2.65
June	5,050	170	895	1.66	1.85
July	520	91	212	.393	.45
August	664	75	156	.289	.33
September	909	68	241	.446	.50
The year	5,850	25	462	.856	11.60
1931-32					
October	179	70	105	.194	.22
November	424	66	168	.311	.35
December	7,000	376	1,570	2.91	3.36
January	9,450	654	2,530	4.69	5.41
February	2,610	352	854	1.58	1.70
March	2,050	260	656	1.21	1.40
April	4,000	308	1,240	2.30	2.57
May	2,330	128	638	1.18	1.36
June	1,290	105	247	.457	.51
July	1,290	92	310	.574	.66
August	330	46	98.7	.174	.20
September	90	32	44.9	.083	.09
The year	9,450	32	707	1.31	17.83

OHIO BASIN—STATION NO. 15

MAHONING CREEK NEAR DAYTON

LOCATION.—Chain gage at Independence Bridge, 1¾ miles northeast of Dayton, Armstrong County.

DRAINAGE AREA.—322 square miles.

RECORDS AVAILABLE.—August, 1916, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 7,000 second-feet Feb. 27 (gage height, 8.1 feet from graph based on gage readings); minimum, 8.0 second-feet Oct. 17 (gage height, 1.40 feet).

Maximum discharge during year ending Sept. 30, 1930, about 7,680 second-feet Feb. 26 (gage height, 8.0 feet from graph based on gage readings); minimum, 16 second-feet at times in August and September (gage height, 1.53 feet).

Maximum discharge during year ending Sept. 30, 1931, about 5,470 second-feet Apr. 4 (gage height, 6.66 feet); minimum, 18 second-feet at times in October (gage height, 1.55 feet).

Maximum discharge during year ending Sept. 30, 1932, about 6,150 second-feet Jan. 19 (gage height, 7.1 feet from graph based on gage readings); minimum, 18 second-feet Sept. 14 (gage height, 1.56 feet).

1916-1932: Maximum gage height (estimated), 9.6 feet Feb. 20, 1918 (discharge not determined); minimum discharge, that of Oct. 17, 1928.

REMARKS.—Records good except those above 2,000 second-feet, which are fair, and those for estimated periods, which are poor. Slight regulation at low stages from small power operations upstream.

Daily discharge, in second-feet, of Mahoning Creek near Dayton, 1928-1932

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	31	71	2,000	140	260	2,000	673	1,200	430	548	157	31
2	28	89	1,300	180	240	1,790	608	1,300	284	196	144	25
3	31	107	1,110	170	240	1,890	578	2,690	204	180	140	21
4	27	110	1,020	130	220	2,000	2,330	2,220	188	160	137	19
5	30	102	978	200	200	1,890	5,300	1,790	176	264	121	16
6	43	94	780	578	180	1,790	3,510	1,250	157	578	99	15
7	38	91	548	608	190	1,790	1,690	898	147	518	83	51
8	34	91	372	578	200	1,590	1,160	780	140	459	69	76
9	26	89	319	220	200	1,490	1,110	673	124	488	58	60
10	21	96	235	300	222	1,390	1,200	638	113	459	51	43
11	19	105	176	440	196	1,250	1,250	578	105	400	53	31
12	16	113	150	380	176	1,060	1,300	608	96	289	69	34
13	13	130	140	260	168	1,110	1,250	638	105	488	53	43
14	12	130	130	200	160	2,220	1,300	937	99	638	64	73
15	11	121	140	200	150	2,450	1,790	1,390	83	344	71	78
16	9.5	124	157	220	160	2,450	2,570	1,590	76	244	71	71
17	8.5	116	319	673	160	2,450	2,950	1,390	66	196	58	64
18	20	107	430	2,000	170	2,110	2,450	1,300	58	160	48	58
19	60	319	400	3,090	190	2,000	1,690	1,200	51	140	37	51
20	46	858	372	1,790	200	1,790	1,490	1,390	105	113	31	46
21	40	1,390	344	937	190	1,590	1,590	2,690	86	96	27	41
22	34	1,250	319	600	170	1,490	1,390	2,950	76	83	23	37
23	46	808	289	480	160	1,390	1,300	2,450	113	69	30	34
24	89	819	259	500	150	1,190	1,020	1,890	744	60	51	26
25	144	708	249	600	160	1,200	2,820	1,590	344	222	43	22
26	150	673	218	500	2,820	1,250	3,940	1,200	249	708	35	23
27	127	608	192	460	6,540	1,390	2,950	780	244	344	37	27
28	110	548	172	400	4,090	1,110	2,220	638	459	264	32	25
29	107	578	196	380	-------	898	1,590	578	578	222	32	27
30	91	744	180	320	-------	858	1,390	518	744	244	45	45
31	76	-------	157	300	-------	780	-------	488	-------	180	30	-------
1929-30												
1	547	324	753	581	324	2,380	520	638	87	69	17	20
2	2,710	295	638	924	299	2,380	638	567	79	65	18	19
3	3,070	434	532	1,110	319	1,990	567	507	74	69	20	21
4	924	388	469	1,070	330	1,750	488	388	69	60	22	28
5	553	350	469	970	335	1,630	410	280	67	55	20	17
6	495	314	469	880	319	1,520	445	227	74	44	28	17
7	445	290	567	753	394	1,460	753	198	90	183	21	20
8	399	257	794	753	290	1,750	794	171	90	143	20	26
9	340	227	1,460	836	271	1,630	900	161	77	79	17	30
10	280	210	1,410	794	257	1,630	700	139	139	60	18	33
11	248	198	1,410	753	253	1,630	601	113	271	51	18	23
12	218	187	1,410	1,440	262	1,410	533	133	168	46	17	22
13	187	179	2,120	2,790	285	1,310	520	129	126	47	16	18
14	150	295	2,790	2,510	410	1,160	674	248	96	51	17	19
15	113	366	1,990	1,630	377	1,020	638	547	96	55	17	20
16	99	335	1,520	1,110	482	924	674	388	82	51	17	20
17	87	2,270	1,410	880	674	794	753	210	223	47	17	20
18	74	6,320	1,460	714	638	753	674	175	319	42	17	20
19	67	3,980	1,630	714	581	674	638	161	210	40	18	18
20	57	2,510	1,520	601	567	601	581	150	153	47	17	18
21	53	1,460	1,460	581	540	547	794	136	126	33	17	20
22	1,560	1,020	1,310	540	514	457	924	123	107	36	17	22
23	2,930	794	1,070	514	836	422	836	110	87	46	17	17
24	1,310	714	924	488	1,210	394	753	133	69	40	17	17
25	836	674	836	451	1,900	382	674	157	74	38	17	20
26	533	638	714	428	5,980	377	601	133	74	36	17	28
27	475	880	638	416	5,980	422	553	129	77	40	16	33
28	428	1,210	533	399	2,930	553	514	136	74	36	16	36
29	377	1,160	488	382	-------	553	469	123	65	25	17	36
30	319	970	451	372	-------	527	601	104	60	25	17	25
31	355	-------	422	350	-------	495	-------	93	-------	30	20	-------

Daily discharge, in second-feet, of Mahoning Creek near Dayton, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	18	25	22	21	84	223	3,420	514	280	107	67	60
2	18	28	22	21	74	231	3,670	404	262	123	57	72
3	18	28	23	21	69	223	4,140	416	218	157	79	276
4	18	26	29	22	67	191	5,300	372	194	146	129	309
5	18	28	36	26	65	183	3,220	350	179	157	104	179
6	18	28	79	36	62	175	1,630	285	306	120	62	175
7	18	25	123	42	65	175	1,260	280	2,180	117	57	139
8	18	26	146	40	77	187	1,020	350	2,650	82	55	104
9	20	44	79	36	79	206	924	416	1,870	77	53	90
10	18	25	55	33	85	175	794	836	836	101	77	96
11	18	25	60	30	101	139	674	836	674	99	214	69
12	19	28	53	29	123	113	540	560	475	110	183	65
13	18	26	44	30	175	133	475	1,360	388	90	136	55
14	18	28	36	30	601	240	416	1,990	309	74	99	60
15	18	29	30	29	488	223	388	2,250	457	62	77	101
16	18	28	32	29	488	240	340	1,870	366	53	67	146
17	20	28	28	28	533	285	304	1,520	299	90	55	126
18	20	30	26	26	601	324	276	1,020	262	404	51	218
19	22	30	26	26	836	350	262	674	210	262	53	191
20	22	28	25	25	924	366	236	587	187	175	57	384
21	20	28	25	25	836	388	227	553	295	324	55	1,090
22	21	29	25	23	601	394	244	581	214	638	53	380
23	25	28	23	23	355	410	399	674	262	714	53	280
24	22	26	23	32	240	434	382	714	428	350	42	231
25	25	29	23	42	248	520	355	753	262	187	74	198
26	25	28	23	62	223	714	1,260	753	231	194	85	377
27	26	28	22	93	223	1,020	1,410	753	295	153	79	753
28	28	26	22	107	214	1,750	970	527	210	123	77	495
29	28	23	22	139	-------	2,250	794	388	164	99	67	355
30	32	22	22	123	-------	1,630	601	340	136	101	67	236
31	26	-------	22	107	-------	1,070	-------	309	-------	87	65	-------
1931-32												
1	227	67	700	667	1,020	240	1,990	210	164	185	90	38
2	191	65	388	2,060	638	210	1,990	198	126	604	69	41
3	164	60	388	1,600	410	198	1,310	191	79	399	87	42
4	146	60	377	1,210	808	198	1,020	168	113	527	194	38
5	143	60	434	1,020	1,260	253	836	153	107	714	133	36
6	126	60	377	1,850	1,020	223	714	168	65	399	104	34
7	120	65	388	2,380	880	168	601	183	133	285	85	31
8	107	65	335	1,520	714	175	533	336	107	463	47	30
9	113	60	345	1,210	753	165	674	836	60	285	44	29
10	120	53	350	970	836	160	1,110	1,110	44	231	51	29
11	101	51	521	714	836	150	924	1,310	44	168	55	30
12	90	55	1,440	574	714	145	970	1,110	47	133	47	30
13	79	62	2,020	527	638	140	924	924	51	126	44	20
14	82	65	4,380	469	520	135	970	836	60	107	36	20
15	139	57	3,160	520	475	130	1,020	567	72	87	38	30
16	117	44	1,870	601	428	145	794	434	67	101	40	30
17	101	55	1,210	1,080	547	135	714	299	129	146	36	28
18	120	60	714	2,600	587	140	601	299	168	120	42	30
19	129	57	581	3,820	422	300	507	285	90	62	44	29
20	87	65	587	1,410	410	753	445	244	101	55	44	28
21	99	87	482	1,310	366	674	404	223	287	55	40	28
22	72	129	451	2,120	377	924	377	214	276	153	47	28
23	65	164	638	2,510	319	1,110	319	198	175	129	46	30
24	62	133	836	3,820	271	753	314	175	129	99	40	26
25	65	133	1,070	2,540	319	753	304	161	69	60	35	25
26	60	126	1,070	1,630	304	1,110	314	146	85	142	33	20
27	67	117	924	1,360	295	1,360	285	133	494	512	33	35
28	65	120	753	880	285	1,210	248	101	910	386	47	30
29	60	168	638	1,080	248	880	210	85	329	194	40	28
30	69	401	533	1,880	-------	1,360	223	69	223	101	44	29
31	90	-------	469	1,520	-------	2,250	-------	62	-------	96	46	-------

Note.—Discharge estimated for periods of ice effect, Jan. 1-5, 9-16, Jan. 22 to Feb. 9, Feb. 14-25, Dec. 3-7, 1929, Feb. 10-13, Nov. 29 to Dec. 5, Dec. 18-31, 1930, Jan. 1 to Feb. 23, 1931, Feb. 8-19, 1932. Discharge estimated for periods of missing gage heights, Apr. 9, 10, Nov. 26-28, 1930, Sept. 2-8, 1932.

Monthly discharge, in second-feet, of Mahoning Creek near Dayton, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	150	8.5	49.6	0.154	0.18
November	1,390	71	376	1.17	1.30
December	2,000	130	440	1.37	1.58
January	3,090	130	575	1.79	2.06
February	6,540	150	649	2.02	2.10
March	2,450	780	1,600	4.97	5.73
April	5,300	578	1,880	5.84	6.52
May	2,950	488	1,300	4.04	4.66
June	744	51	215	.668	.75
July	708	60	302	.938	1.08
August	157	23	64.7	.201	.23
September	78	15	40.4	.125	.14
The year	6,540	8.5	624	1.94	26.33
1929-30					
October	3,070	57	653	2.03	2.34
November	6,320	179	975	3.03	3.38
December	2,490	422	1,090	3.39	3.91
January	2,790	350	862	2.68	3.09
February	5,980	253	981	3.05	3.18
March	2,380	377	1,080	3.35	3.86
April	924	410	641	1.99	2.22
May	638	93	223	.693	.80
June	319	60	113	.351	.39
July	183	25	54.5	.169	.19
August	28	16	18.1	.056	.06
September	36	17	22.8	.071	.08
The year	6,320	16	557	1.73	23.50
1930-31					
October	32	18	21.1	.066	.08
November	44	22	27.7	.086	.10
December	146	22	39.5	.123	.14
January	139	21	43.7	.136	.16
February	924	62	305	.947	.99
March	2,250	113	483	1.50	1.73
April	5,300	227	1,200	3.73	4.16
May	2,250	280	750	2.33	2.69
June	2,650	136	503	1.56	1.74
July	714	53	180	.559	.64
August	214	42	79.0	.245	.28
September	1,090	55	244	.758	.85
The year	5,300	18	321	1.00	13.56
1931-32					
October	227	60	106	.329	.38
November	401	44	92.1	.286	.32
December	4,380	335	917	2.85	3.29
January	3,820	469	1,530	4.75	5.48
February	1,260	248	576	1.79	1.93
March	2,250	130	534	1.66	1.91
April	1,990	210	722	2.24	2.50
May	1,310	62	369	1.15	1.33
June	910	44	160	.497	.55
July	714	55	230	.714	.82
August	194	33	57.5	.178	.21
September	42	20	30.0	.093	.10
The year	4,380	20	445	1.38	18.82

CROOKED CREEK NEAR FORD CITY*

LOCATION.—Chain gage at highway bridge, 3½ miles south of Ford City Armstrong County, and 4.2 miles above confluence with Allegheny River.

DRAINAGE AREA.—279 square miles.

RECORDS AVAILABLE.—October, 1909, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 15,000 second-feet Feb. 26 (gage height, 12.2 feet from graph based on gage readings); minimum, 2.1 second-feet Aug. 29 (gage height, 0.42 foot).

Maximum discharge during year ending Sept. 30, 1930, 9,050 second-feet Feb. 26 (gage height, 9.8 feet from graph based on gage readings); minimum, 1 second-foot Aug. 11 (gage height, 0.30 foot).

Maximum discharge during year ending Sept. 30, 1931, 9,530 second-feet Apr. 4 (gage height, 10.1 feet from graph based on gage readings); minimum, 1.6 second-feet Oct. 5, 11, (gage height, 0.40 foot).

Maximum discharge during year ending Sept. 30, 1932, 3,490 second-feet Jan. 24 (gage height, 6.2 feet from graph based on gage readings); minimum, 0.1 second-foot Sept. 11, 25, 26.

1909-1932: Maximum discharge, about 16,500 second-feet June 29, 1924; maximum gage height, 15.39 feet, affected by ice, Mar. 14, 1912; minimum discharge, that of Sept. 11, 25, 26, 1932.

REMARKS.—Records poor. Regulation from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	20	33	1,150	80	130	749	400	469	286	89	36	5.8
2	19	27	990	110	110	1,580	357	493	184	68	32	4.8
3	16	32	445	95	95	1,310	282	1,580	138	59	48	2.8
4	17	27	95	80	80	990	338	1,070	113	50	38	4.2
5	18	33	68	90	75	1,490	2,960	780	89	135	29	6.1
6	21	33	65	130	75	1,760	3,730	658	98	249	26	6.4
7	14	35	65	130	80	1,960	1,310	915	94	127	18	7.3
8	17	30	60	80	95	1,860	812	780	82	167	15	7.8
9	20	18	60	75	110	1,400	572	600	82	117	15	17
10	17	23	60	80	110	845	629	422	68	106	13	24
11	12	37	60	100	110	469	915	304	57	102	12	19
12	14	38	60	130	95	307	990	256	51	77	12	16
13	12	57	70	120	80	311	845	234	25	65	12	20
14	12	66	87	95	70	688	718	338	37	65	11	25
15	13	58	154	80	65	1,070	749	688	44	58	11	14
16	12	51	163	80	60	1,230	1,400	600	36	48	7.8	12
17	13	46	148	95	60	990	2,840	378	34	38	10	16
18	38	53	191	2,840	70	718	1,670	338	30	30	9.2	12
19	126	318	224	2,660	80	400	990	1,070	30	29	6.9	9.6
20	75	378	207	915	95	318	629	1,070	26	26	6.1	11
21	53	286	150	311	80	282	915	1,760	22	24	5.8	11
22	56	252	130	170	70	275	1,230	1,760	17	19	5.8	12
23	49	262	100	150	60	338	915	990	16	17	37	17
24	43	227	90	140	60	357	629	749	718	23	41	12
25	32	210	80	150	220	311	572	469	300	104	24	9.6
26	25	184	75	140	10,400	445	1,070	304	136	378	15	10
27	24	135	70	110	3,330	519	780	189	94	136	7.3	7.3
28	31	120	70	95	1,150	445	600	167	95	96	2.8	6.4
29	37	104	70	95	-------	357	718	1,230	314	62	3.6	4.5
30	33	127	60	110	-------	357	545	600	124	47	7.8	5.2
31	32	-------	60	130	-------	400	-------	445	-------	42	7.3	-------

*Formerly published as Crooked Creek at Hileman's Farm.

Daily discharge, in second-feet, of Crooked Creek near Ford City, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	7.4	79	90	552	240	1,060	280	424	36	34	2.7	4.9
2	103	70	86	1,310	265	1,400	552	149	33	39	1.7	3.1
3	1,640	95	86	2,450	290	1,310	582	129	26	35	1.8	2.2
4	677	139	90	1,140	355	1,060	447	97	24	26	1.7	3.7
5	251	140	102	582	500	712	362	98	26	22	1.8	3.9
6	153	124	120	447	800	747	362	116	38	20	1.4	8.3
7	110	104	150	362	560	861	327	122	36	18	1.8	8.3
8	95	90	220	402	420	822	295	112	33	50	1.5	7.4
9	63	80	402	524	395	677	265	86	27	48	1.7	5.3
10	49	83	344	472	1,000	497	212	72	251	32	2.1	2.7
11	42	76	265	524	800	472	168	63	472	17	1.1	2.9
12	41	81	212	612	600	822	153	55	200	14	2.7	3.7
13	41	76	891	1,490	660	712	129	84	137	20	2.4	6.1
14	43	329	2,450	1,940	860	552	142	107	98	26	1.7	3.7
15	48	524	1,480	1,140	700	402	126	178	66	61	1.4	2.9
16	50	402	1,060	612	560	344	106	224	55	38	1.5	2.4
17	41	928	497	524	620	295	153	93	178	20	2.4	1.7
18	33	4,040	612	472	747	280	178	116	189	12	2.7	1.6
19	28	2,890	784	424	644	311	166	135	122	7.8	4.2	2.6
20	24	1,480	861	362	497	295	144	280	79	7.8	3.7	3.7
21	25	784	582	305	402	237	137	311	63	5.3	2.7	5.7
22	40	382	505	250	280	200	178	237	56	14	3.1	4.9
23	1,120	362	470	235	212	162	212	132	50	8.3	3.1	3.7
24	582	280	450	225	472	178	189	113	56	5.7	4.9	6.1
25	311	237	430	220	5,370	237	157	98	114	8.3	2.4	4.2
26	189	153	410	210	7,980	224	142	87	81	6.9	4.2	3.1
27	122	164	405	210	4,920	168	129	76	66	3.1	5.7	2.9
28	102	153	400	210	2,560	311	168	64	50	3.9	3.7	2.0
29	88	125	400	215	-------	612	146	55	39	3.9	3.7	2.7
30	73	105	405	220	-------	447	366	49	33	3.4	4.5	4.9
31	81	-------	430	225	-------	327	-------	44	-------	1.7	2.7	-------
1930-31												
1	3.7	7.8	3.0	3.5	28	93	820	189	116	73	20	46
2	4.2	6.1	3.0	3.0	28	84	2,430	151	97	60	24	222
3	5.7	2.7	4.0	3.5	30	69	2,020	178	84	46	44	838
4	3.7	5.7	8.0	4.5	25	74	7,160	160	68	39	73	379
5	2.0	8.7	12	7.0	23	63	4,070	132	86	42	65	172
6	2.4	5.7	15	9.0	20	65	1,500	104	80	38	48	97
7	2.7	3.7	18	7.0	20	55	842	86	344	30	32	76
8	3.4	2.4	27	5.0	25	47	552	386	2,540	26	22	59
9	2.2	6.5	30	4.5	32	60	265	344	1,150	18	18	49
10	2.2	3.9	26	4.5	37	60	224	644	463	14	36	38
11	2.2	5.7	16	5.0	30	49	265	756	296	17	107	32
12	4.9	9.2	16	7.0	25	50	224	404	180	27	113	32
13	4.2	4.2	19	10	30	49	160	224	149	22	58	22
14	2.9	4.9	16	8.0	60	81	144	518	132	14	45	17
15	2.7	7.4	12	5.0	250	149	142	524	122	12	94	26
16	3.9	5.7	8.0	4.5	950	166	126	382	107	22	53	21
17	6.5	5.3	6.0	4.5	880	149	121	311	95	42	39	31
18	5.7	7.4	4.5	6.0	1,000	116	116	237	76	38	31	32
19	3.7	11	3.5	10	1,280	147	104	200	63	58	53	19
20	3.4	8.7	3.0	7.0	677	178	49	158	50	60	97	37
21	4.2	5.7	3.0	4.5	552	155	53	140	54	58	84	149
22	2.2	3.7	3.0	3.5	362	140	61	119	63	379	53	424
23	2.0	4.2	3.0	3.0	311	126	135	200	105	194	39	220
24	3.7	4.9	3.0	3.5	212	114	47	497	157	104	44	70
25	4.2	6.9	3.0	6.0	164	189	70	497	122	65	31	48
26	6.1	4.3	3.5	15	132	427	969	382	502	46	22	132
27	3.7	4.5	5.0	25	100	255	712	265	748	40	39	382
28	2.9	4.0	5.5	35	98	308	497	224	320	33	50	251
29	5.7	3.5	5.5	55	-------	1,630	402	151	159	10	44	142
30	5.7	3.0	5.0	45	-------	904	265	129	100	2.9	39	93
31	5.3	-------	4.0	35	-------	384	-------	113	-------	16	37	-------

Daily discharge, in second-feet, of Crooked Creek near Ford City, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	91	46	560	930	1,570	93	1,750	79	28	49	29	26
2	93	47	311	2,340	1,060	91	1,840	66	30	120	12	22
3	50	53	237	1,900	712	87	980	66	40	134	18	14
4	53	46	168	1,140	524	83	582	55	26	181	17	8.8
5	46	36	157	822	612	132	382	55	22	194	12	5.1
6	65	30	164	1,240	612	95	311	65	16	152	11	2.6
7	63	20	130	1,840	402	79	265	66	22	258	14	.9
8	50	20	104	980	327	70	212	64	15	379	11	.2
9	52	26	94	677	311	64	200	132	12	110	6.2	.4
10	59	28	157	424	280	61	212	263	11	60	4.3	.4
11	38	34	249	295	295	59	265	402	12	55	6.2	.1
12	29	34	1,220	237	295	58	408	344	13	37	3.5	.3
13	24	40	1,900	200	280	57	497	265	15	31	1.7	1.0
14	30	34	2,780	178	237	56	582	237	20	18	10	3.2
15	37	44	1,400	212	212	55	524	212	19	15	10	1.1
16	42	48	980	212	200	57	447	134	39	14	7.1	.2
17	70	40	604	213	212	80	327	126	65	16	3.2	.3
18	104	52	362	840	237	350	251	98	53	16	4.3	.5
19	81	44	280	677	237	497	212	88	34	15	5.4	.2
20	72	50	212	472	200	582	129	86	29	13	4.0	.2
21	60	58	153	552	178	447	84	70	26	11	5.9	.9
22	43	73	122	1,040	153	1,310	64	64	27	9.5	4.3	1.0
23	36	83	285	2,110	137	1,060	98	59	22	10	4.0	.9
24	46	80	400	2,780	118	644	81	58	20	12	2.4	.3
25	54	81	582	1,840	129	472	94	52	19	8.9	2.2	.1
26	44	74	1,140	1,570	110	382	149	44	27	9.8	2.4	.2
27	42	64	1,220	900	114	477	104	41	368	22	1.1	.3
28	46	59	549	497	119	677	84	41	205	20	2.4	1.5
29	42	68	711	432	113	881	83	37	71	113	3.1	1.1
30	55	206	237	1,330	-------	1,570	76	34	42	107	17	1.8
31	63	-------	200	1,570	-------	1,660	-------	31	-------	33	22	-------

Note.—Discharge estimated for periods of ice effect, Dec. 6-13, 22-31, 1928, Jan. 1-17, Jan. 22 to Feb. 25, Nov. 29 to Dec. 8, Dec. 18-31, 1929, Jan 21 to Feb. 17, Nov. 27 to Dec. 9, Dec. 16-31, 1930, Jan. 1 to Feb. 18, 1931, Mar. 8-18, 1932.

Monthly discharge, in second-feet, of Crooked Creek near Ford City, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	136	12	30.0	0.108	0.12
November	378	18	110	.394	.44
December	1,150	60	173	.620	.71
January	2,840	75	292	1.05	1.21
February	10,400	60	611	2.19	2.28
March	1,960	275	791	2.84	3.27
April	3,730	282	1,040	3.73	4.16
May	1,760	167	700	2.51	2.89
June	718	16	115	.412	.46
July	378	17	85.6	.307	.35
August	48	2.8	16.9	.001	.07
September	25	2.8	11.2	.040	.04
The year	10,400	2.8	329	1.18	16.00

Monthly discharge, in second-feet, of Crooked Creek near Ford City, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	1,640	7.4	202	0.724	0.83
November	4,040	70	486	1.74	1.94
December	2,450	86	506	1.81	2.09
January	2,450	210	609	2.18	2.51
February	7,980	240	1,200	4.30	4.45
March	1,400	162	540	1.94	2.24
April	582	106	232	.832	.93
May	424	44	129	.462	.53
June	472	24	91.1	.327	.36
July	61	1.7	19.7	.071	.08
August	5.7	1.1	2.67	.010	.01
September	8.3	1.6	4.04	.014	.02
The year	7,980	1.1	330	1.18	16.02
1930-31					
October	6.5	2.0	3.81	.014	0.2
November	11	2.4	5.60	.020	.02
December	30	3.0	9.47	.034	.04
January	55	3.0	11.3	.041	.05
February	1,280	20	264	.946	.99
March	1,630	47	208	.746	.86
April	7,160	47	918	2.93	3.27
May	756	86	284	1.02	1.18
June	2,540	50	288	1.03	1.15
July	379	2.9	53.1	.190	.22
August	113	18	50.1	.180	.21
September	838	17	139	.498	.56
The year	7,160	2.0	176	.631	8.57
1931-32					
October	104	24	54.2	.194	.22
November	206	20	53.9	.193	.22
December	2,780	94	557	2.00	2.31
January	2,780	178	982	3.52	4.06
February	1,570	110	344	1.23	1.33
March	1,660	55	396	1.42	1.64
April	1,840	64	376	1.35	1.51
May	402	31	111	.398	.46
June	368	11	44.9	.161	.18
July	379	8.9	71.7	.257	.30
August	29	1.1	8.28	.030	.03
September	26	.1	3.17	.011	.01
The year	2,780	.1	251	.900	12.27

OHIO BASIN—STATION NO. 17

KISKIMINETAS RIVER AT AVONMORE

LOCATION.—Chain gage at highway bridge at Avonmore, Westmoreland County. Zero of gage is 805.64 feet above mean sea level.

DRAINAGE AREA.—1,720 square miles.

RECORDS AVAILABLE.—May, 1907, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 26,700 second-feet Feb. 26 (gage height, 16.96 feet from graph based on gage readings); minimum, 314 second-feet Sept. 24 (gage height, 2.63 feet).

Maximum discharge during year ending Sept. 30, 1930, about 48,800 second-feet Feb. 25 (gage height, 23.3 feet from graph based on gage readings); minimum, 195 second-feet Sept. 2 (gage height, 2.36 feet).

Maximum discharge during year ending Sept. 30, 1931, 37,300 second-feet Apr. 4 (gage height, 20.2 feet from graph based on gage readings); minimum, 180 second-feet Oct. 14 (gage height, 2.27 feet).

Maximum discharge during year ending Sept. 30, 1932, 30,600 second-feet Apr. 1 (gage height, 18.3 feet from graph based on gage readings); minimum, 160 second-feet Sept. 26 (gage height, 2.20 feet).

1907-1932: Maximum gage height (estimated), 30.8 feet Mar. 19, 1908 (discharge not determined); minimum discharge, 60 second-feet Sept. 18-27, 1908 (gage height, 1.6 feet).

REMARKS.—Records good except those for periods of ice effect, which are poor. Slight regulation at low stages from power operations upstream.

Daily discharge, in second-feet, of Kiskiminetas River at Avonmore, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	424	450	5,170	702	1,900	8,430	2,960	5,170	4,080	1,820	528	356
2	450	450	4,470	700	1,800	7,700	2,520	4,600	3,080	1,630	475	356
3	450	424	2,740	700	1,800	6,230	2,100	8,620	2,520	1,360	502	334
4	424	424	2,200	700	1,800	7,360	2,000	7,700	2,200	1,050	556	334
5	424	424	1,720	700	1,800	8,060	7,190	5,780	1,910	1,050	612	334
6	450	424	1,720	770	1,700	11,300	12,600	5,020	1,720	1,200	612	356
7	450	475	1,360	850	1,600	12,900	7,700	7,530	1,460	1,460	502	334
8	401	475	1,120	850	1,600	8,800	5,620	6,860	1,460	1,460	450	378
9	378	502	1,050	850	1,600	6,230	5,170	5,320	1,540	1,360	450	475
10	378	528	840	750	1,600	4,210	8,430	4,340	1,460	1,200	424	424
11	401	528	840	850	1,600	3,690	9,550	3,560	1,200	1,120	424	450
12	378	528	850	1,100	1,500	4,340	7,700	3,080	1,050	910	1,280	424
13	378	556	750	1,600	1,500	6,860	6,540	3,690	982	840	910	378
14	356	840	982	1,100	1,500	11,500	6,230	3,820	910	735	640	356
15	356	770	1,820	900	1,500	14,700	5,930	8,980	840	671	556	401
16	314	702	2,000	750	1,500	11,800	11,800	4,340	770	671	528	378
17	356	612	1,630	900	1,500	10,300	20,800	3,950	770	612	475	401
18	475	583	1,720	6,380	1,500	7,020	14,500	3,200	770	583	424	671
19	502	583	2,200	8,980	1,700	5,320	9,740	4,880	840	556	401	556
20	528	1,120	1,820	6,080	3,200	4,470	8,060	5,930	770	528	378	450
21	475	1,540	1,460	3,440	3,000	3,820	12,400	6,860	840	502	378	378
22	401	1,360	840	2,630	2,600	3,320	17,400	6,700	1,460	475	378	356
23	378	1,360	910	4,600	2,200	3,560	10,700	5,020	1,120	475	450	334
24	424	1,200	850	4,880	2,000	3,560	7,530	4,080	2,630	475	556	314
25	424	1,120	850	4,600	1,800	3,200	6,080	3,820	2,300	475	475	314
26	450	1,050	850	5,470	15,900	2,850	8,060	2,960	2,200	1,820	450	334
27	450	910	850	3,440	20,800	3,080	7,880	2,410	1,720	1,280	401	334
28	475	982	850	2,850	14,000	2,630	6,080	2,200	1,540	1,050	378	334
29	475	910	850	2,200	-------	2,300	7,700	10,300	4,880	702	378	334
30	502	1,120	850	2,000	-------	2,200	6,380	9,170	2,960	640	356	334
31	475	-------	736	2,000	-------	3,080	-------	5,780	-------	556	356	-------
1929-30												
1	333	1,140	1,550	2,970	1,000	7,570	2,250	1,890	795	622	278	244
2	529	1,100	1,400	4,320	1,100	9,390	3,150	1,800	689	622	278	207
3	15,400	1,100	1,300	5,700	1,450	8,280	3,930	1,710	689	689	274	220
4	5,850	1,840	1,300	4,840	2,000	6,260	3,260	1,440	622	559	274	433
5	3,170	1,840	1,300	3,710	4,000	5,230	2,850	1,350	590	486	256	360
6	3,830	1,480	1,450	3,380	4,600	5,810	2,550	1,440	559	451	264	296
7	1,480	1,300	1,800	3,170	4,000	5,960	2,650	1,710	590	2,600	264	278
8	1,220	1,140	2,800	2,870	3,200	6,900	3,480	1,530	590	1,950	278	248
9	940	1,100	3,830	3,170	2,800	6,900	3,050	1,230	559	950	269	248
10	820	980	2,670	3,600	2,400	5,660	2,950	1,070	2,970	723	256	260
11	740	940	2,380	3,170	2,100	5,370	2,950	1,070	5,980	590	244	256
12	665	980	2,110	3,070	2,000	6,900	2,750	990	3,370	522	228	236
13	595	940	4,380	4,450	2,200	5,660	2,550	1,110	1,980	504	244	260
14	565	980	14,400	5,700	3,400	6,110	2,750	1,070	1,350	504	260	305
15	565	3,300	9,080	5,120	3,000	5,230	2,550	1,190	1,110	622	325	325
16	630	5,550	6,150	4,190	1,800	4,290	2,250	1,620	910	528	325	320
17	565	4,130	4,710	3,380	1,850	3,930	2,750	1,440	2,890	474	366	300
18	508	12,200	5,120	2,870	2,000	3,810	2,850	1,230	4,420	439	320	355
19	480	10,400	6,310	2,290	2,200	6,550	2,850	1,460	2,650	410	310	325
20	480	6,470	6,790	1,900	2,470	6,220	2,850	4,110	1,800	410	305	269
21	455	4,710	4,190	1,600	3,270	4,550	2,550	3,150	1,440	377	287	248
22	550	3,490	3,270	1,400	3,070	3,810	3,840	2,350	1,230	366	292	260
23	9,990	2,870	3,000	1,250	2,970	3,260	5,180	1,890	990	388	292	264
24	3,970	2,470	2,600	1,050	3,950	2,950	3,810	1,620	910	372	305	282
25	2,670	2,200	2,470	1,000	34,900	2,850	3,370	1,620	990	366	296	278
26	2,020	2,020	2,380	1,000	22,100	2,650	3,050	1,270	1,030	366	300	287
28	1,660	1,840	2,200	1,000	18,000	2,650	2,750	1,070	990	372	292	260
28	1,390	2,290	2,670	1,000	11,000	2,350	2,350	1,030	910	340	274	248
29	1,220	2,110	2,970	1,000	-------	2,350	2,160	990	723	320	278	244
30	1,140	1,930	2,770	1,000	-------	2,450	1,980	910	622	300	274	232
31	1,140	-------	2,570	1,000	-------	2,450	-------	832	-------	282	274	-------

Daily discharge, in second-feet, of Kiskiminetas River at Avonmore, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	256	224	305	182	870	1,230	4,790	2,950	2,250	1,230	622	1,030
2	232	217	260	187	689	1,890	8,770	2,550	1,980	1,440	516	1,370
3	228	220	260	194	655	2,070	7,390	2,550	1,620	1,890	1,250	3,600
4	220	210	274	220	559	1,620	29,700	2,450	1,440	1,710	1,440	1,980
5	228	204	355	282	559	1,590	18,300	1,980	1,440	1,710	1,070	1,980
6	213	200	468	410	516	1,350	9,710	1,800	1,890	1,190	689	1,440
7	213	207	559	468	474	1,230	7,740	1,800	2,710	990	590	1,110
8	210	207	795	950	559	1,150	6,420	3,370	4,030	870	516	870
9	217	200	655	832	590	1,190	5,660	4,290	2,650	723	474	795
10	220	197	559	723	622	1,030	4,810	4,420	1,980	723	723	723
11	200	200	433	622	870	910	4,420	4,170	1,530	1,900	1,070	655
12	187	217	404	559	759	870	3,810	3,150	1,270	1,980	950	622
13	187	207	410	498	841	832	3,150	5,040	1,150	1,150	655	559
14	184	207	522	456	3,050	990	2,850	8,640	990	832	559	522
15	190	213	489	422	3,220	1,710	2,550	7,530	2,110	689	468	590
16	187	213	330	410	2,450	2,250	2,350	5,510	1,620	655	416	516
17	194	213	260	422	2,070	1,980	2,070	4,290	1,890	870	366	590
18	197	224	248	468	2,050	1,890	1,890	3,590	1,440	1,890	382	1,830
19	187	244	228	528	4,030	1,800	1,710	3,150	1,030	3,480	669	1,870
20	187	240	213	622	4,680	2,250	1,530	5,130	870	1,890	2,270	1,030
21	182	236	200	655	3,930	1,980	1,350	4,950	795	1,800	1,440	5,060
22	190	217	197	590	3,050	1,980	1,350	4,680	723	2,350	1,230	2,560
23	200	224	194	590	2,450	2,160	2,220	11,400	1,030	1,620	1,150	1,530
24	197	217	190	603	2,070	1,980	2,750	12,800	2,680	1,440	910	1,620
25	197	220	187	655	1,890	2,450	3,370	8,820	1,890	1,190	795	1,270
26	224	228	187	723	1,620	4,040	4,440	6,900	1,460	910	795	4,330
27	217	217	184	1,030	1,440	3,930	8,000	5,090	4,980	759	1,230	5,010
28	217	213	184	2,070	1,190	3,480	5,960	3,810	3,330	655	1,800	3,050
29	236	213	182	1,530	-------	7,090	4,550	3,150	2,070	622	1,890	2,070
30	236	269	182	1,150	-------	6,780	3,590	2,450	1,530	559	1,620	1,620
31	232	-------	182	950	-------	4,950	-------	2,450	-------	590	1,350	-------
1931-32												
1	1,230	655	4,410	2,500	5,810	1,440	26,300	1,300	630	455	398	455
2	1,030	655	3,370	4,490	4,810	1,350	15,000	1,480	595	480	321	329
3	950	590	2,350	6,110	4,810	1,270	10,600	1,390	565	565	325	270
4	795	559	2,160	4,810	5,090	1,270	7,620	1,140	630	508	333	246
5	723	528	2,250	3,930	6,720	1,440	5,850	1,100	595	630	345	246
6	655	522	2,160	5,360	4,960	1,710	4,840	1,220	565	595	309	225
7	655	528	1,890	10,800	4,680	1,620	3,830	1,220	480	480	284	217
8	622	492	1,620	8,100	4,290	1,150	3,270	1,140	455	868	294	205
9	1,550	480	1,440	5,960	5,090	1,150	3,070	1,720	455	802	274	205
10	1,350	462	2,070	4,680	4,290	1,110	3,380	4,590	398	535	263	200
11	910	468	2,650	3,810	4,420	1,060	3,380	7,110	390	398	291	195
12	795	655	8,310	3,260	4,050	1,040	4,320	6,150	421	373	421	198
13	655	723	10,400	2,850	3,480	1,020	4,320	5,260	455	341	333	192
14	655	1,110	16,200	2,750	2,950	1,010	3,830	5,400	1,140	321	274	200
15	723	910	11,400	2,450	2,650	1,000	4,070	4,450	860	298	260	217
16	759	795	7,920	2,450	2,350	1,500	4,070	3,380	740	288	235	220
17	1,240	723	5,660	2,160	2,550	6,500	3,490	2,670	900	341	220	223
18	3,200	723	4,290	2,550	3,150	6,100	3,070	2,290	1,100	333	266	217
19	2,550	723	3,590	2,850	2,850	5,660	2,770	2,020	820	284	369	205
20	1,800	759	2,950	2,450	2,350	6,610	2,470	1,750	565	270	398	200
21	1,440	689	2,650	2,160	2,160	6,820	2,200	1,570	535	266	309	200
22	1,270	795	2,450	2,350	2,070	9,630	2,020	1,390	565	302	260	208
23	1,110	950	3,590	3,440	1,980	11,600	1,840	1,220	480	755	249	198
24	950	910	3,760	7,760	1,620	8,100	1,750	1,060	455	434	232	180
25	1,070	832	5,880	5,980	1,620	6,420	1,660	980	394	325	229	180
26	870	795	4,810	4,550	1,710	5,810	1,660	900	361	277	205	182
27	795	759	3,810	4,050	1,620	7,230	1,570	820	995	294	205	190
28	723	795	3,370	3,810	1,620	8,640	1,300	780	960	373	205	220
29	759	910	3,050	3,150	1,620	7,570	1,220	780	702	924	214	280
30	723	1,460	2,650	10,200	-------	9,390	1,140	740	535	840	483	288
31	655	-------	2,350	9,940	-------	17,700	-------	665	-------	480	860	-------

Note.—Discharge estimated for periods of ice effect, Dec. 12, 13, 24-30, 1928, Jan. 2-5, 7-17, Jan. 30 to Feb. 25, Dec. 1-8, 23, 24, 1929, Jan. 20 to Feb. 18, Nov. 27 to Dec. 8, Dec. 16-31, 1930, Jan. 1-28, 1931, Mar. 9-18, 1932.

Monthly discharge, in second-feet, of Kiskiminetas River at Avonmore, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	528	314	426	0.248	0.39
November	1,540	424	765	.445	.50
December	5,170	736	1,510	.878	1.01
January	8,980	700	2,400	1.40	1.61
February	20,800	1,500	3,450	2.01	2.09
March	14,700	2,200	6,280	3.65	4.21
April	20,800	2,000	8,240	4.79	5.34
May	10,300	2,200	5,340	3.10	3.57
June	4,880	770	1,730	1.01	1.13
July	1,820	475	944	.549	.63
August	1,280	356	506	.294	.34
September	671	314	384	.223	.25
The year	20,800	314	2,660	1.55	20.97
1929-30					
October	15,400	333	2,120	1.23	1.42
November	12,200	940	2,830	1.65	1.84
December	14,400	1,300	3,610	2.10	2.42
January	5,700	1,000	2,780	1.62	1.87
February	34,900	1,000	5,320	3.09	3.22
March	9,390	2,350	4,980	2.90	3.34
April	5,180	1,980	2,940	1.71	1.91
May	4,110	832	1,520	.884	1.02
June	5,980	559	1,500	.872	.97
July	2,600	282	597	.347	.40
August	366	228	283	.165	.19
September	433	207	278	.162	.18
The year	34,900	207	2,380	1.38	18.78
1930-31					
October	256	182	209	.122	.14
November	269	197	217	.126	.14
December	795	182	325	.189	.22
January	2,070	182	645	.375	.43
February	4,680	474	1,730	1.01	1.05
March	7,090	832	2,280	1.33	1.53
April	29,700	1,350	5,580	3.24	3.62
May	12,800	1,900	4,670	2.72	3.14
June	4,980	723	1,880	1.09	1.22
July	3,480	559	1,300	.756	.87
August	2,270	366	965	.561	.65
September	5,060	516	1,730	1.01	1.13
The year	29,700	182	1,790	1.04	14.14
1931-32					
October	3,200	622	1,070	.622	.72
November	1,460	462	732	.426	.48
December	16,200	1,440	4,370	2.54	2.93
January	10,800	2,160	4,570	2.66	3.07
February	6,720	1,620	3,360	1.95	2.10
March	17,700	1,000	4,640	2.70	3.11
April	26,300	1,140	4,530	2.63	2.93
May	7,110	665	2,180	1.27	1.46
June	1,140	361	625	.363	.40
July	924	266	466	.271	.31
August	460	205	312	.181	.21
September	455	180	227	.132	.15
The year	26,300	180	2,260	1.31	17.87

KISKIMINETAS RIVER AT VANDERGRIFT

LOCATION.—Water-stage recorder at pumping plant of the American Sheet & Tin Plate Co. at Vandergrift, Westmoreland County, 767.14 feet above mean sea level. Float gage at same site and datum used prior to Oct. 1, 1930.

DRAINAGE AREA.—1,830 square miles.

RECORDS AVAILABLE.—November, 1915, to September, 1932.

EXTREMES.—Maximum stage during year ending Sept. 30, 1929, 17.1 feet (determined from hydrograph) Feb. 27; minimum, 3.58 feet Oct. 4, 19, 23, Nov. 8, Sept. 9, 13.

Maximum stage during year ending Sept. 30, 1930, 22.5 feet Feb. 25; minimum, 3.08 feet Sept. 3, 4.

Maximum stage during year ending Sept. 30, 1931, 19.55 feet Apr. 4; minimum, 2.95 feet Dec. 2.

Maximum stage during year ending Sept. 30, 1932, 17.7 feet Apr. 1; minimum, 3.06 feet Sept. 26.

1915-1932: Maximum stage, 25.0 feet (determined from hydrograph) Oct. 14, 1927; minimum, 2.00 feet Sept. 9, 11, 1922.

REMARKS.—Records good. Discharge not determined owing to variable unmetered diversion at the station. Well and shelter for water-stage recorder and services of observer furnished by American Sheet and Tin Plate Co., Vandergrift, Pa. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet		Feet	Second-feet
1929			1930			1931		
Sept. 28	3.75	[a] 300	Aug. 14	3.38	[a] 190	Oct. 22	4.94	[a] 1,350
1930			Aug. 14	3.38	[a] 206	1932		
July 15	4.00	[a] 557	Oct. 3	3.30	[a] 201	June 5	4.13	[b] 681
July 15	4.03	[a] 562				Aug. 18	3.23	[c] 211

[a] Includes water diverted by American Sheet and Tin Plate Co. Amount diverted not known.
[b] Diversion of 11 second-feet by American Sheet and Tin Plate Co. has been deducted.
[c] Diversion of 22 second-feet by American Sheet and Tin Plate Co. has been deducted.

Daily Mean Gage Height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	3.67	3.58	7.15	4.50	4.92	10.42	6.75	8.25	7.75	5.92	4.50	3.83
2	3.67	3.58	8.00	4.50	4.92	9.46	6.46	7.78	6.92	5.50	4.33	3.83
3	3.67	3.58	6.58	4.50	4.92	8.92	6.25	9.79	6.42	5.25	4.17	3.83
4	3.62	3.58	5.96	4.50	4.83	8.67	6.08	10.00	6.00	5.08	4.17	3.75
5	3.58	3.58	5.54	4.50	4.83	9.20	8.60	8.66	5.83	4.92	4.17	3.67
6	3.58	3.58	5.33	4.50	4.83	11.30	13.05	8.04	5.62	4.92	4.08	3.67
7	3.58	3.58	5.25	4.42	4.83	12.45	10.15	8.98	5.50	4.92	4.00	3.67
8	3.58	3.62	4.92	4.33	5.17	10.75	8.79	9.29	5.42	5.50	4.00	3.84
9	3.58	3.67	4.75	4.38	5.25	8.86	8.30	8.33	5.42	5.17	4.00	3.62
10	3.58	3.67	4.58	4.42	5.33	7.38	9.05	7.75	5.42	5.17	4.00	3.58
11	3.58	3.67	4.58	4.79	5.33	7.00	10.55	7.08	5.29	5.00	3.92	3.58
12	3.58	3.67	-------	5.08	5.25	7.19	9.84	6.75	5.08	4.88	4.79	3.58
13	3.58	3.67	4.50	4.84	5.08	8.35	9.00	6.80	4.96	4.62	5.00	3.58
14	3.58	3.67	4.42	4.50	4.92	10.35	8.83	6.92	4.83	4.42	4.58	3.67
15	3.58	3.71	5.04	4.50	4.92	12.60	8.38	8.42	4.79	4.33	4.17	3.67
16	3.58	3.96	5.67	4.50	4.96	11.42	11.30	7.88	4.62	4.21	4.17	3.67
17	3.58	4.00	5.67	4.85	4.92	10.96	15.55	7.38	4.54	4.17	4.17	3.67
18	3.58	4.00	5.50	5.65	5.00	9.38	13.00	6.80	4.50	4.08	4.00	4.00
19	3.62	4.00	5.84	9.00	5.08	8.30	10.92	7.30	4.50	4.08	3.96	4.33
20	3.67	4.20	5.83	8.78	5.33	7.62	9.71	7.92	4.42	4.08	3.92	4.25
21	3.67	5.25	5.75	7.30	5.25	7.21	10.85	8.80	4.42	4.04	3.92	4.17
22	3.67	5.20	5.25	6.45	5.00	6.84	13.90	9.38	4.96	4.00	3.96	3.96
23	3.62	5.17	4.92	6.90	4.92	6.67	11.75	8.34	5.25	4.00	4.21	3.92
24	3.58	5.08	4.58	8.29	4.92	6.83	9.92	7.58	6.04	4.00	4.25	3.83
25	3.58	4.92	4.50	7.50	4.92	6.75	8.75	7.21	6.50	4.00	4.21	3.88
26	3.58	4.83	4.50	8.04	11.40	6.29	9.50	6.75	5.96	5.08	4.00	3.75
27	3.58	4.50	4.50	7.42	15.30	6.50	9.80	6.25	5.84	5.42	4.00	3.67
28	3.58	4.50	4.50	6.30	12.38	6.42	8.85	6.05	5.45	5.38	3.96	3.67
29	3.58	4.50	4.50	5.96	-------	6.08	9.33	9.80	7.85	4.92	3.92	3.67
30	3.58	4.55	4.50	5.00	-------	6.00	9.16	10.85	6.92	4.42	3.92	3.67
31	3.58	-------	4.50	5.00	-------	6.58	-------	8.90	-------	4.46	3.92	-------

Daily Mean Gage Height, in feet, of Kiskiminetas River at Vandergrift, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	3.67	4.75	5.50	6.84	4.75	9.58	5.83	5.67	4.50	4.30	3.50	3.42
2	4.12	4.75	5.58	8.08	4.75	9.70	6.38	5.62	4.38	4.17	3.46	3.42
3	11.05	4.71	5.92	9.16	5.00	10.12	7.34	5.46	4.29	4.00	3.42	3.25
4	9.70	5.12	5.96	8.85	5.46	8.95	6.90	5.38	4.21	3.92	3.42	3.12
5	7.42	5.75	5.92	7.88	6.96	8.08	6.42	5.25	4.17	3.92	3.42	3.42
6	6.30	5.42	5.92	7.42	7.45	8.33	6.25	5.00	4.04	3.83	3.42	3.58
7	5.40	5.17	5.92	7.12	6.70	8.46	6.08	5.16	4.00	4.55	3.42	3.50
8	5.00	5.00	5.96	6.96	6.42	8.70	6.79	5.16	3.96	6.04	3.42	3.46
9	4.71	5.00	7.70	6.96	6.00	9.00	6.66	4.92	3.92	4.84	3.42	3.42
10	4.50	4.79	6.46	7.50	5.96	8.25	6.34	4.92	5.80	4.42	3.42	3.42
11	4.34	4.62	6.08	7.29	6.38	8.00	6.54	4.92	9.55	4.08	3.42	3.42
12	4.08	4.58	5.88	7.00	6.00	8.80	6.42	4.67	7.25	4.00	3.42	3.42
13	4.04	4.54	7.10	7.92	6.00	8.34	6.21	4.67	6.08	3.92	3.42	3.42
14	3.92	4.58	12.20	8.90	7.00	8.29	6.21	4.67	5.42	3.75	3.42	3.42
15	3.92	5.33	10.80	8.70	7.12	8.20	6.20	4.71	5.04	3.78	3.42	3.42
16	3.92	8.50	9.12	8.08	6.42	7.58	6.04	5.08	4.75	4.00	3.42	3.42
17	3.92	7.30	8.00	7.58	5.42	7.17	6.00	5.34	5.80	3.96	3.42	3.42
18	3.92	10.90	7.83	7.00	5.50	7.00	6.33	5.00	7.85	3.83	3.42	3.42
19	3.92	11.29	8.70	6.10	5.75	8.30	6.25	4.80	6.46	3.83	3.42	3.42
20	3.92	9.21	9.38	5.12	6.08	8.79	6.38	6.50	5.75	3.79	3.50	3.42
21	3.83	8.20	8.00	5.80	6.62	7.80	6.05	6.90	5.42	3.67	3.50	3.42
22	3.83	7.50	7.16	6.08	6.92	7.20	6.15	6.10	5.08	3.67	3.42	3.42
23	8.10	6.84	6.83	5.66	6.66	6.70	7.90	5.79	4.88	3.67	3.46	3.42
24	8.00	6.25	6.67	5.05	6.80	6.50	7.20	5.46	4.70	3.67	3.46	3.42
25	6.40	5.96	9.50	5.00	18.11	6.29	6.80	5.33	4.50	3.58	3.46	3.42
26	5.96	5.75	10.33	5.38	15.83	6.29	6.66	5.16	4.42	3.58	3.42	3.30
27	5.58	5.50	10.29	5.62	14.40	6.16	6.33	5.00	4.58	3.58	3.42	3.17
28	5.21	5.71	7.38	5.42	11.21	5.84	6.16	4.75	4.54	3.58	3.42	3.17
29	5.04	5.83	7.04	5.38	-------	5.75	6.00	4.58	4.42	3.54	3.42	3.17
30	4.83	5.50	6.92	5.29	-------	5.79	5.80	4.54	4.38	3.50	3.42	3.17
31	4.75	-------	6.75	5.00	-------	5.92	-------	4.54	-------	3.50	3.42	-------
1930-31												
1	3.28	3.30	3.38	3.40	4.47	4.87	7.63	6.53	5.88	4.95	3.97	4.72
2	3.28	3.29	3.16	3.45	4.22	5.17	10.00	6.20	5.62	4.93	3.85	4.91
3	3.27	3.28	3.38	3.45	4.04	5.90	9.65	6.15	5.33	5.22	4.47	7.20
4	3.28	3.24	3.69	3.51	4.05	5.45	16.80	6.13	5.11	5.38	5.17	6.50
5	3.29	3.21	3.60	3.50	3.90	5.25	14.08	5.78	5.12	5.42	4.67	5.77
6	3.29	3.21	3.65	3.56	3.89	5.00	10.80	5.52	5.38	4.89	4.30	5.22
7	3.21	3.26	3.80	3.85	3.78	4.88	9.75	5.48	6.60	4.62	4.02	4.80
8	3.22	3.25	4.35	4.48	3.95	4.80	9.20	7.62	7.60	4.43	3.85	4.55
9	3.24	3.25	4.25	4.13	4.01	4.82	8.63	8.04	6.45	4.23	3.79	4.36
10	3.24	3.26	4.00	3.98	4.12	4.73	8.01	7.88	5.75	4.16	4.00	4.23
11	3.24	3.23	3.80	3.87	4.30	4.52	7.64	7.57	5.35	5.22	4.64	4.12
12	3.22	3.26	3.71	3.94	4.36	4.42	7.29	6.87	5.05	5.72	4.62	4.04
13	3.20	3.25	3.69	3.78	4.36	4.40	6.80	7.41	4.82	4.85	4.25	3.93
14	3.15	3.25	3.82	3.70	5.68	4.50	6.49	9.72	4.65	4.45	3.99	3.86
15	3.14	3.28	3.77	3.57	6.85	5.17	6.22	9.45	5.38	4.21	3.82	3.86
16	3.15	3.28	3.42	3.45	6.06	5.87	5.95	8.29	5.30	4.08	3.70	3.85
17	3.17	3.30	3.38	3.45	5.75	5.60	5.71	7.55	5.68	4.37	3.57	3.89
18	3.22	3.28	3.40	3.57	6.00	5.50	5.55	7.10	5.18	5.25	3.52	5.03
19	3.18	3.30	3.45	3.55	7.17	5.44	5.40	6.65	4.73	7.15	3.70	5.60
20	3.15	3.34	3.42	3.66	7.80	5.80	5.20	7.36	4.48	5.77	5.70	4.71
21	3.16	3.32	3.40	3.81	7.30	5.69	5.03	7.68	4.35	5.38	5.15	7.88
22	3.16	3.30	3.44	3.83	6.71	5.65	4.95	8.01	4.28	6.08	4.80	6.45
23	3.19	3.29	3.32	3.80	6.15	5.85	5.55	10.30	5.00	5.43	4.82	5.28
24	3.20	3.28	3.32	3.84	5.80	5.71	6.43	11.95	6.40	5.12	4.53	5.25
25	3.25	3.24	3.38	3.84	5.60	6.02	6.60	10.17	5.75	4.85	4.34	5.01
26	3.29	3.25	3.44	3.86	5.35	7.25	7.50	9.22	5.10	4.57	4.52	6.58
27	3.29	3.20	3.49	4.13	5.19	7.37	9.60	8.18	7.50	4.34	4.52	8.02
28	3.28	3.13	3.45	5.43	4.94	6.95	8.62	7.33	6.88	4.16	5.37	6.64
29	3.30	3.17	3.47	5.25	-------	8.62	7.73	6.70	5.83	4.05	5.57	5.87
30	3.30	3.24	3.49	4.78	-------	9.09	7.10	6.26	5.29	3.91	5.31	5.32
31	3.29	-------	3.45	4.53	-------	7.88	-------	6.01	-------	3.98	5.06	-------

Daily Mean Gage Height, in feet, of Kiskiminetas River at Vandergrift, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	4.92	4.12	7.52	6.32	8.71	5.06	16.46	4.77	4.10	3.84	3.70	4.00
2	4.67	4.12	7.06	7.71	7.82	4.93	12.82	5.08	4.06	3.76	3.51	3.56
3	4.51	4.08	6.25	8.70	7.82	4.83	11.25	5.19	4.03	4.10	3.42	3.34
4	4.36	4.00	5.86	8.04	8.04	4.80	9.85	4.84	4.06	3.97	3.40	3.26
5	4.23	3.92	5.90	7.34	8.85	4.98	8.70	4.72	4.12	3.97	3.48	3.22
6	4.11	3.88	5.95	7.98	8.34	4.29	8.05	4.85	4.02	4.11	3.44	3.25
7	4.09	3.85	5.68	10.90	7.74	5.38	7.50	4.93	3.87	4.00	3.37	3.19
8	4.05	3.84	5.87	9.82	7.56	4.73	7.00	4.85	3.81	4.40	3.32	3.13
9	4.77	3.80	5.13	8.63	8.14	4.87	6.40	5.30	3.74	4.52	3.20	3.15
10	5.21	3.76	5.68	7.92	7.54	5.04	6.85	7.35	3.69	4.08	3.29	3.12
11	4.65	3.75	6.16	7.23	7.52	5.03	7.00	6.80	3.63	3.80	3.30	3.13
12	4.35	3.82	9.21	6.74	7.36	5.06	7.17	8.84	3.67	3.62	3.55	3.12
13	4.21	4.12	10.38	6.48	6.98	5.10	7.65	8.20	3.75	3.54	3.49	3.12
14	4.15	4.59	13.54	6.32	6.56	4.90	7.33	8.20	4.46	3.45	3.37	3.10
15	4.16	4.55	11.72	6.10	6.23	4.78	7.47	7.72	4.57	3.38	3.26	3.13
16	4.23	4.36	9.75	6.01	6.03	4.73	7.42	7.07	4.24	3.37	3.21	3.17
17	4.51	4.23	8.53	5.91	6.08	5.20	7.02	6.50	4.48	3.39	3.17	3.17
18	6.35	4.19	7.68	6.05	6.62	8.40	6.66	6.06	4.63	3.49	3.20	3.19
19	6.27	4.20	7.08	6.50	6.37	8.84	6.39	5.74	4.55	3.38	3.38	3.16
20	5.65	4.25	6.67	6.12	6.02	8.55	6.13	5.49	4.13	3.32	3.72	3.13
21	5.23	4.23	6.32	5.90	5.83	8.75	5.92	5.31	3.96	3.31	3.50	3.12
22	4.97	4.25	6.20	5.95	5.65	9.95	5.75	5.13	4.03	3.35	3.34	3.10
23	4.76	4.42	6.97	6.87	5.65	11.40	5.56	4.94	3.90	4.04	3.25	3.10
24	4.60	4.50	7.27	9.70	5.40	9.85	5.40	4.78	3.78	3.88	3.20	3.08
25	4.52	4.45	8.50	8.91	5.13	8.90	5.32	4.65	3.67	3.51	3.15	3.08
26	4.46	4.40	8.25	7.83	5.30	8.37	5.40	4.56	3.59	3.37	3.12	3.07
27	4.35	4.43	7.33	7.47	5.26	8.92	5.28	4.46	4.00	3.34	3.13	3.09
28	4.24	4.40	6.87	7.23	5.20	9.60	5.14	4.39	4.68	3.49	3.16	3.14
29	4.21	4.45	6.61	7.30	5.18	9.60	4.92	4.35	4.39	3.95	3.17	3.23
30	4.24	4.80	6.32	9.92	-------	10.40	4.77	4.27	4.02	4.64	3.51	3.36
31	4.17	-------	6.02	10.74	-------	12.82	-------	4.18	-------	4.01	4.38	-------

OHIO BASIN—STATION NO. 19

STONY CREEK AT JOHNSTOWN

LOCATION.—Chain gage at Poplar Street Bridge at Johnstown, Cambria County, 1½ miles above confluence with Little Conemaugh River. Zero of gage is 1,154.0 feet above mean sea level.

DRAINAGE AREA.—468 square miles.

RECORDS AVAILABLE.—July, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 8,080 second-feet Feb. 26 (gage height, 9.15 feet from graph based on gage readings); minimum (estimated), 5 second-feet Sept. 8.

Maximum discharge during year ending Sept. 30, 1930, 9,460 second-feet Feb. 25 (gage height, 9.9 feet from graph based on gage reading); minimum, 13 second-feet Aug. 8 (gage height, 0.84 foot).

Maximum discharge during year ending Sept. 30, 1931, 7,760 second-feet Apr. 4 (gage height, 9.02 feet); minimum, 12 second-feet Oct. 25 (gage height, 0.83 foot).

Maximum discharge during year ending Sept. 30, 1932, 7,940 second-feet Apr. 1 (gage height, 9.1 feet from graph based on gage readings); minimum, 18 second-feet Sept. 19 (gage height, 0.89 foot).

1913-1932: Maximum discharge, about 23,000 second-feet Mar. 29, 1924 (gage height, 16.9 feet from graph based on gage readings); minimum, that of Sept. 8, 1929.

REMARKS.—Records good except those below 100 second-feet and those for estimated periods, which are poor. Diurnal regulation at low stages. Water supply for Cambria Plant of the Bethlehem Steel Co. diverted from Quemahoning Reservoir, not included in records except in part of monthly table. Record of monthly diversion furnished by Bethlehem Steel Co.

Daily discharge, in second-feet, of Stony Creek at Johnstown, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	46	66	1,580	191	220	1,980	755	1,140	1,210	435	48	19
2	62	64	1,070	175	200	1,210	510	1,070	815	390	40	19
3	54	56	618	181	190	1,210	435	2,710	728	305	41	15
4	58	48	510	181	190	1,580	485	1,980	562	264	84	11
5	62	70	412	181	180	3,140	2,510	1,420	460	242	123	11
6	58	75	345	180	190	3,260	2,420	1,210	412	213	79	11
7	56	77	275	200	200	2,140	1,660	1,980	345	345	60	11
8	46	68	157	240	200	1,580	1,280	1,500	390	435	50	11
9	46	68	139	290	220	1,210	1,070	1,210	510	305	40	38
10	43	93	181	345	220	1,070	2,140	940	390	200	33	60
11	36	93	200	435	240	940	2,320	815	286	191	43	35
12	32	112	206	305	220	1,210	1,980	700	246	157	40	18
13	30	200	200	260	180	2,510	1,740	755	222	145	36	28
14	30	172	169	240	150	5,480	1,500	1,070	191	134	62	22
15	27	123	485	240	140	4,920	1,580	1,070	178	128	66	18
16	29	117	485	240	130	4,360	4,230	940	166	117	43	19
17	29	107	390	300	130	3,370	4,640	815	151	107	30	93
18	46	107	590	645	140	2,230	3,600	728	197	98	30	86
19	64	123	485	1,280	180	1,740	2,710	672	160	90	28	62
20	66	194	412	815	180	1,280	2,920	700	271	77	24	40
21	48	229	290	535	180	1,140	3,260	755	216	70	23	26
22	58	219	325	345	180	1,070	3,850	672	264	66	23	20
23	58	206	297	485	180	1,140	2,920	618	435	68	30	19
24	62	200	260	590	170	1,140	2,320	618	1,420	70	58	21
25	66	191	239	535	368	940	1,980	562	940	64	48	20
26	66	184	250	412	3,480	815	2,920	485	645	84	33	20
27	66	188	222	390	5,200	755	2,230	412	390	95	28	21
28	62	200	200	300	3,260	645	1,740	618	1,000	81	23	19
29	79	203	200	280	-------	590	1,660	4,100	618	62	19	32
30	79	368	200	240	-------	700	1,350	3,030	485	54	21	31
31	75	-------	200	220	-------	755	-------	1,900	-------	46	19	-------
1929-30												
1	24	318	210	547	170	1,710	547	447	98	71	19	19
2	1,490	401	200	657	188	1,470	629	424	90	74	20	18
3	3,610	472	200	1,080	227	1,320	686	330	86	71	19	33
4	1,280	522	210	1,000	299	1,180	547	318	90	54	18	26
5	715	496	244	745	447	1,080	472	273	74	56	19	23
6	496	401	280	657	447	1,180	424	273	78	49	18	22
7	273	338	358	629	338	1,390	838	258	94	161	22	17
8	204	299	1,160	601	280	1,710	936	237	90	78	16	28
9	164	273	1,040	657	299	1,710	936	213	86	54	18	27
10	144	220	594	629	358	1,550	903	175	352	42	19	22
11	109	251	472	657	338	1,710	775	166	673	46	18	23
12	94	237	855	715	358	1,710	657	172	374	38	19	18
13	94	230	2,210	838	424	1,550	574	166	164	40	19	33
14	82	292	2,140	806	838	1,710	775	181	120	54	33	35
15	117	791	1,550	686	657	1,390	547	191	106	60	42	22
16	100	657	1,110	629	472	1,250	629	210	130	56	38	27
17	98	1,380	870	547	447	1,110	775	184	496	43	39	39
18	86	2,580	870	447	447	1,110	715	204	380	38	35	28
19	82	1,710	1,110	273	496	1,810	686	280	234	32	31	31
20	78	1,320	1,000	230	806	1,840	645	358	166	29	28	28
21	67	1,040	657	200	1,040	1,550	715	299	136	24	23	29
22	2,870	715	601	190	936	1,790	1,190	210	132	28	23	38
23	3,490	601	547	182	903	1,390	1,320	172	109	38	26	39
24	1,130	496	522	180	3,310	838	936	172	102	48	29	40
25	686	424	480	178	6,840	686	806	161	224	45	28	42
26	547	401	472	175	4,240	745	715	152	204	42	27	33
27	447	380	547	172	3,050	547	629	139	115	35	23	36
28	358	496	629	170	2,140	522	522	115	92	24	22	31
29	338	401	629	170	-------	574	472	120	102	26	19	33
30	338	251	574	170	-------	574	447	120	86	22	18	29
31	318	-------	547	170	-------	496	-------	106	-------	22	17	-------

Daily discharge, in second-feet, of Stony Creek at Johnstown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	26	27	45	25	191	358	1,180	657	574	230	109	227
2	28	24	140	30	184	806	1,720	574	447	210	300	258
3	27	24	80	40	178	715	3,760	657	380	175	604	401
4	29	28	50	70	172	496	7,150	601	318	210	380	358
5	28	32	40	130	120	424	3,180	472	358	172	237	269
6	27	29	90	358	111	358	2,530	401	496	164	169	224
7	28	24	120	440	106	318	1,870	487	380	126	139	197
8	27	19	161	380	111	280	1,630	2,050	338	113	115	197
9	27	22	144	318	120	241	1,870	1,180	280	88	126	161
10	22	19	98	191	150	230	1,390	903	241	626	358	132
11	22	22	90	139	200	215	1,250	775	213	1,190	472	120
12	19	19	129	98	300	205	1,000	776	194	447	244	115
13	17	29	155	85	472	207	838	3,860	164	237	164	102
14	19	27	102	80	601	299	715	4,500	204	164	129	104
15	20	24	60	78	629	631	601	2,700	161	139	106	102
16	22	24	50	75	496	496	522	1,870	158	134	94	109
17	17	27	45	70	472	447	472	1,390	146	180	90	668
18	16	35	40	70	806	424	424	1,180	129	3,020	78	1,160
19	17	33	35	70	1,110	472	380	1,040	117	1,570	460	278
20	15	33	35	70	1,080	496	318	970	106	1,040	620	191
21	15	32	35	90	903	522	299	1,450	102	715	358	280
22	15	29	30	110	629	547	338	1,760	117	629	380	210
23	22	27	30	120	522	522	410	3,620	358	447	358	204
24	18	29	30	120	496	601	574	3,270	522	447	273	178
25	13	31	30	140	401	806	963	2,230	269	338	200	204
26	14	24	30	200	380	1,110	1,080	1,750	237	255	220	700
27	17	22	25	672	318	1,710	1,710	1,320	657	194	380	1,110
28	22	21	25	524	276	2,990	1,250	1,000	338	158	472	444
29	27	20	25	424	-------	2,800	1,000	806	248	136	522	299
30	27	24	25	251	-------	1,790	775	657	213	117	496	230
31	29	-------	25	207	-------	1,320	-------	657	-------	139	318	-------
1931-32												
1	191	136	380	401	1,140	266	7,230	318	142	63	58	53
2	169	132	496	660	1,100	244	4,580	447	134	71	43	46
3	142	106	447	1,000	436	234	3,860	273	213	76	53	54
4	134	111	447	870	1,170	261	2,740	237	178	78	63	82
5	117	94	424	715	2,210	424	2,050	204	136	76	51	60
6	111	96	380	1,340	1,970	358	1,630	197	136	74	46	49
7	104	106	318	2,530	1,550	338	1,390	184	113	82	43	43
8	146	104	244	2,170	1,710	310	1,080	586	117	98	40	36
9	234	96	358	1,390	1,470	280	936	1,040	94	84	38	32
10	175	94	547	1,180	1,250	260	970	1,320	98	71	40	35
11	136	250	1,010	936	1,180	255	903	1,790	92	54	51	33
12	120	224	2,550	745	970	250	970	1,550	96	49	46	32
13	113	175	3,860	715	775	245	970	1,550	115	46	45	32
14	134	126	3,620	601	629	240	870	1,470	175	45	40	32
15	129	109	2,530	601	547	240	1,250	1,390	139	45	32	31
16	142	113	1,870	686	547	280	903	970	204	53	27	29
17	518	102	1,390	629	686	1,300	806	715	144	51	24	24
18	522	106	1,040	522	745	1,110	686	686	120	40	87	27
19	338	98	903	447	547	1,040	601	522	115	46	51	19
20	241	84	775	380	496	1,080	522	424	104	42	58	27
21	230	90	629	358	424	2,250	472	380	117	40	48	27
22	230	92	472	358	401	2,830	447	318	100	53	36	27
23	210	86	430	596	380	2,940	380	280	78	78	35	27
24	204	88	856	1,510	338	2,330	358	255	76	63	32	29
25	172	86	1,660	1,250	358	2,430	358	237	67	43	32	29
26	172	72	1,630	838	338	2,430	358	217	65	43	28	27
27	146	86	1,390	806	318	2,530	318	197	76	49	32	32
28	155	78	1,320	745	318	2,230	280	181	90	46	31	160
29	136	104	1,250	840	299	2,500	251	200	76	76	32	56
30	136	280	715	1,630	-------	4,110	251	204	71	67	106	31
31	139	-------	496	1,630	-------	6,240	-------	161	-------	63	94	-------

Note.—Discharge estimated for periods of ice effect, Jan. 6-8, 13-17, Jan. 28 to Feb. 24, Dec. 1-4, 1929, Jan. 20 to Feb. 1, Nov. 27 to Dec. 5, Dec. 16-31, 1930, Jan. 1-5, 13-26, Mar. 10-12, 1931, Mar. 8-16, 1932. Discharge estimated for days of missing gage heights Dec. 18, 28-31, 1928, Aug. 31 to Sept. 8, Dec. 25, 1929, Apr. 20, 1930, Jan. 7, Feb. 9-12, 1931.

Monthly discharge, in second-feet, of Stony Creek at Johnstown, 1928-1932

Month	Observed			Corrected for storage		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	79	27	52.9	141	0.301	0.35
November	368	48	141	222	.474	.53
December	1,580	189	374	462	.987	1.14
January	1,280	175	363	465	.994	1.15
February	5,200	130	597	707	1.51	1.57
March	5,480	590	1,810	1,930	4.12	4.75
April	4,640	435	2,160	2,290	4.89	5.46
May	4,100	412	1,200	1,330	2.84	3.27
June	1,420	151	477	607	1.30	1.45
July	435	46	166	270	.577	.67
August	123	19	42.7	163	.348	.40
September	93	11	28.5	143	.306	.34
The year	5,480	11	617	729	1.56	21.08
1929-30						
October	3,610	24	643	755	1.61	1.86
November	2,580	220	613	726	1.55	1.73
December	2,210	200	738	854	1.82	2.10
January	1,080	170	483	602	1.29	1.49
February	6,840	170	1,100	1,220	2.61	2.72
March	1,840	496	1,260	1,370	2.93	3.38
April	1,320	424	715	82.7	1.77	1.98
May	447	196	222	333	.712	.82
June	673	74	176	266	.568	.63
July	161	22	48.4	130	.278	.32
August	42	16	24.0	118	.252	.29
September	42	17	29.0	114	.244	.27
The year	6,840	16	501	606	1.29	17.59
1930-31						
October	29	13	21.7	73.8	.158	.18
November	35	19	26.0	67.5	.144	.16
December	161	25	65.1	97.2	.208	.24
January	672	25	183	238	.509	.59
February	1,110	106	412	478	1.02	1.06
March	2,990	205	737	788	1.68	1.94
April	7,150	299	1,370	1,420	3.03	3.38
May	4,500	401	1,470	1,550	3.31	3.82
June	657	102	282	346	.739	.82
July	3,020	88	445	510	1.09	1.26
August	620	78	289	358	.765	.88
September	1,160	102	308	403	.861	.96
The year	7,150	13	468	528	1.13	15.29
1931-32						
October	522	104	189	189	.404	.47
November	280	72	117	143	.306	.34
December	3,860	241	1,110	1,160	2.48	2.86
January	2,530	358	938	1,020	2.18	2.51
February	2,210	299	838	946	2.02	2.18
March	6,240	234	1,350	1,440	3.08	3.55
April	7,230	251	1,280	1,360	2.91	3.25
May	1,790	161	597	666	1.42	1.64
June	213	65	116	194	.415	.46
July	98	40	90.2	126	.269	.31
August	166	24	46.5	123	.263	.30
September	160	19	40.7	108	.231	.26
The year	7,230	19	557	623	1.33	18.13

BLACKLICK CREEK AT BLACKLICK

LOCATION.—Chain gage at highway bridge at Gratton one-fourth mile northwest of Blacklick, Indiana County.

DRAINAGE AREA.—386 square miles.

RECORDS AVAILABLE.—August, 1904, to December, 1905; January, 1907, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 7,790 second-feet Feb. 26 (gage height, 8.10 feet); minimum, 25 second-feet Aug. 23, Sept. 6 (gage height, 2.10 feet).

Maximum discharge during year ending Sept. 30, 1930, 11,500 second-feet Feb. 25 (gage height, 9.70 feet); minimum, 24 second-feet Aug. 1, 12, 13 (gage height, 2.10 feet).

Maximum discharge during year ending Sept. 30, 1931, 10,500 second-feet Apr. 4 (gage height, 9.30 feet from graph based on gage readings); minimum (estimated), 25 second-feet Dec. 29 to Jan. 1.

Maximum discharge during year ending Sept. 30, 1932, 6,540 second-feet Apr. 1 (gage height, 7.5 feet from graph based on gage readings); minimum, 18 second-feet Sept. 14 (gage height, 2.04 feet).

1904-5, 1907-1932: Maximum discharge, about 21,000 second-feet Sept. 3, 1912 (gage height, 12.90 feet); minimum, 6 second-feet Sept. 12, 16-27, 1908 (gage height, 1.88 feet).

REMARKS.—Records good except those for low stages, which are fair, and those for periods of ice effect, which are poor. Diurnal regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	49	60	1,520	160	340	1,420	658	990	500	340	114	31
2	56	58	835	188	276	1,520	560	910	390	305	94	30
3	41	60	560	118	240	1,160	500	1,960	365	204	100	30
4	47	76	500	128	200	1,420	530	1,330	295	156	172	30
5	41	87	418	142	200	2,230	3,340	1,070	268	290	118	30
6	58	90	390	176	190	2,230	3,510	990	254	300	84	27
7	58	84	286	180	200	2,840	1,730	1,960	209	365	79	35
8	79	90	220	204	200	1,730	1,240	1,330	258	290	65	58
9	41	84	200	218	220	1,240	1,160	1,070	240	390	60	49
10	43	100	180	222	240	798	1,840	835	168	315	58	49
11	38	87	170	445	200	725	1,730	690	153	236	60	39
12	41	87	160	365	170	990	1,520	560	122	160	70	35
13	45	168	160	220	160	1,330	1,330	798	111	146	58	35
14	41	180	209	200	160	2,230	1,160	835	104	125	52	43
15	38	168	330	200	160	2,520	1,330	1,330	104	125	76	60
16	39	122	305	220	160	2,090	2,840	950	87	97	54	43
17	47	104	276	418	160	1,520	4,060	760	90	79	45	60
18	76	97	390	1,330	180	1,160	2,520	658	114	82	43	57
19	136	160	365	2,520	200	798	1,730	1,420	97	79	31	56
20	97	592	315	1,330	200	760	1,520	1,330	104	65	31	41
21	60	445	164	760	180	658	2,840	2,230	209	58	33	35
22	41	340	188	625	150	625	3,000	1,730	200	52	31	28
23	56	340	286	550	140	760	1,840	1,240	445	52	36	30
24	62	305	281	550	160	690	1,240	990	760	52	58	33
25	82	254	258	550	315	560	1,160	798	390	335	84	31
26	79	139	245	550	6,110	560	1,840	658	418	725	54	31
27	84	140	214	480	4,660	625	1,420	500	245	835	41	33
28	87	140	192	400	2,380	560	1,240	472	725	335	33	31
29	100	200	180	365	-------	472	1,520	1,520	835	227	31	28
30	84	390	150	365	-------	625	1,160	950	445	172	33	39
31	62	-------	160	390	-------	835	-------	690	-------	132	33	-------

Daily discharge, in second-feet, of Blacklick Creek at Blacklick, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929–30												
1	40	250	320	730	220	1,830	569	368	160	99	27	32
2	360	211	310	1,180	240	3,530	1,200	324	141	134	28	33
3	2,910	254	305	1,520	300	2,050	1,060	268	127	116	30	145
4	1,000	449	300	1,100	450	1,520	868	224	103	90	32	116
5	540	319	310	798	800	1,180	696	216	87	84	32	60
6	338	282	330	763	520	1,280	631	343	99	124	33	44
7	259	254	500	730	450	1,320	798	368	130	1,060	34	38
8	211	228	1,000	664	370	1,420	832	259	113	258	34	33
9	163	203	980	868	350	1,280	664	220	96	152	30	33
10	145	179	730	980	470	1,020	664	199	546	145	28	32
11	127	195	631	832	430	1,180	568	175	808	134	28	27
12	106	216	568	980	400	1,420	538	141	382	87	26	30
13	106	195	891	1,740	904	1,100	478	199	224	96	26	32
14	106	282	3,630	1,630	1,060	1,100	507	141	183	216	36	36
15	116	1,640	1,980	1,370	763	868	422	224	137	145	47	36
16	120	1,240	1,320	1,020	449	763	449	290	134	87	42	38
17	103	1,290	1,060	763	631	696	664	228	1,520	77	44	42
18	77	4,100	1,860	631	507	763	568	199	1,060	71	44	38
19	77	2,620	2,240	314	538	1,230	730	401	632	65	39	34
20	68	1,630	1,630	280	763	763	631	1,600	394	57	34	32
21	68	1,230	1,020	265	798	696	553	832	319	55	34	30
22	151	868	798	260	664	568	1,020	538	259	49	36	30
23	1,490	696	736	250	600	507	872	449	207	57	39	33
24	631	631	631	245	794	507	730	422	216	62	42	33
25	507	507	507	240	8,440	478	696	394	246	42	39	34
26	394	449	507	235	6,970	538	568	286	203	47	36	36
27	305	422	478	230	4,680	478	449	246	237	44	36	33
28	246	631	664	225	2,470	422	422	224	175	38	36	36
29	207	394	631	225	-------	507	394	220	137	39	38	32
30	220	350	507	220	-------	730	333	195	93	36	33	30
31	286	-------	538	220	-------	568	-------	195	-------	34	32	-------
1930–31												
1	32	49	65	25	100	314	1,280	631	394	233	71	80
2	32	49	110	26	95	478	2,110	538	309	305	68	228
3	32	39	130	31	88	329	2,120	631	272	449	123	895
4	30	39	65	40	82	309	7,960	478	211	691	171	436
5	27	38	63	60	80	237	3,450	394	309	368	123	309
6	33	42	80	150	95	228	1,870	368	233	250	77	199
7	30	39	120	190	85	211	1,520	329	930	211	68	163
8	33	39	160	160	90	199	1,140	730	1,100	175	57	120
9	30	39	130	165	73	203	1,060	664	631	175	55	106
10	32	36	68	165	100	183	868	868	449	160	145	93
11	30	38	57	100	115	141	832	696	343	277	141	77
12	30	34	74	80	118	175	664	648	272	171	103	71
13	33	38	90	65	123	163	568	1,180	237	127	80	65
14	30	34	74	60	1,060	188	568	1,320	183	103	60	65
15	28	34	52	55	568	422	449	1,020	199	87	39	60
16	34	33	40	50	507	394	394	832	355	90	39	84
17	33	34	36	50	478	422	368	763	526	126	44	110
18	36	49	33	55	832	422	333	664	264	610	52	290
19	36	52	32	65	1,320	478	282	569	199	234	110	175
20	34	49	30	95	1,060	449	259	911	163	145	171	113
21	34	44	30	85	798	449	237	1,150	163	358	93	477
22	36	36	29	78	631	478	241	924	148	587	62	266
23	39	33	28	71	538	478	580	3,260	224	319	55	187
24	39	33	28	69	507	478	507	2,700	394	237	42	187
25	38	30	27	80	394	730	1,140	1,740	207	160	68	130
26	42	29	27	115	368	1,100	1,990	1,370	433	134	167	772
27	39	28	26	300	286	823	2,380	904	1,290	103	152	601
28	52	27	26	240	268	1,090	1,370	696	666	110	207	368
29	55	27	25	190	-------	2,880	1,060	538	394	80	203	259
30	57	30	25	140	-------	1,230	763	478	286	84	137	199
31	52	-------	25	120	-------	942	-------	449	-------	74	106	-------

Daily discharge, in second-feet, of Blacklick Creek at Blacklick, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	167	113	980	494	1,180	241	4,850	290	93	120	62	65
2	137	110	664	1,130	1,060	220	2,520	282	99	321	57	47
3	127	99	478	1,320	1,140	207	1,860	207	103	195	52	39
4	113	96	422	1,020	1,100	228	1,230	195	96	211	116	38
5	113	90	507	942	1,020	343	1,020	224	84	241	77	36
6	156	90	422	1,950	832	259	868	246	77	156	60	34
7	120	84	343	2,380	763	240	696	191	65	148	34	28
8	152	80	228	1,520	980	230	631	216	68	502	52	30
9	203	80	319	1,180	868	220	600	678	62	180	47	28
10	137	74	478	904	942	215	904	1,780	62	96	39	27
11	116	77	650	696	1,020	210	763	1,980	60	65	184	27
12	106	80	1,520	600	832	205	1,280	1,280	84	52	106	28
13	99	106	2,860	568	763	200	1,140	1,060	96	42	55	28
14	106	163	3,510	507	568	200	1,020	832	160	55	32	24
15	127	130	2,320	449	538	200	1,140	664	113	49	33	47
16	137	130	1,370	507	422	260	904	568	96	68	36	39
17	511	123	1,020	450	709	400	798	449	145	68	36	33
18	631	134	798	884	730	1,060	730	394	259	57	90	26
19	422	171	664	730	568	1,080	568	338	148	57	130	33
20	324	167	631	664	507	1,370	507	286	90	47	71	28
21	268	145	507	568	394	1,230	449	259	87	44	44	30
22	203	203	507	730	422	2,450	394	216	127	123	42	22
23	187	224	832	1,510	368	2,060	338	191	99	199	38	28
24	171	191	920	2,700	241	1,520	314	167	80	84	36	26
25	152	183	1,400	1,520	319	1,180	319	156	60	47	38	27
26	148	171	980	1,140	314	1,280	343	145	96	42	33	28
27	127	163	763	1,100	295	1,740	295	134	628	68	39	28
28	137	183	696	832	282	1,520	246	134	394	136	39	49
29	141	220	631	798	254	1,370	228	134	211	774	46	47
30	127	750	507	3,390	-------	1,860	216	113	137	215	203	39
31	123	-------	449	2,060	-------	4,140	-------	106	-------	103	134	-------

Note.—Discharge estimated for periods of ice effect, Nov. 27, 28, Dec. 8-13, 1928, Jan. 13-16, 23-28, Feb. 3-24, Nov. 30 to Dec. 8, 1929, Jan. 20 to Feb. 12, Nov. 26 to Dec. 9, Dec. 16-31, 1930, Jan. 1 to Feb. 12, 1931, Mar. 7-17, 1932, interpolated because of missing gage height for Oct. 14, 1931, and estimated for period of questionable gage readings, July 7-11, 1932.

Monthly discharge, in second-feet, of Blacklick Creek at Blacklick, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	136	38	61.5	0.159	0.18
November	592	58	175	.453	.51
December	1,520	150	326	.845	.97
January	2,520	118	470	1.22	1.41
February	6,110	140	648	1.68	1.75
March	2,520	472	1,220	3.16	3.64
April	4,060	500	1,740	4.51	5.03
May	2,230	472	1,080	2.80	3.23
June	835	87	290	.751	.84
July	835	52	230	.596	.69
August	172	31	62.3	.161	.19
September	87	27	39.6	.103	.11
The year	6,110	27	527	1.37	18.55

Monthly discharge, in second-feet, of Blacklick Creek at Blacklick, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	2,910	40	370	0.959	1.11
November	4,100	179	740	1.92	2.14
December	3,630	300	900	2.33	2.69
January	1,740	220	694	1.80	2.08
February	8,440	220	1,290	3.34	3.48
March	3,530	422	1,040	2.69	3.10
April	1,200	338	652	1.69	1.89
May	1,600	114	335	.868	1.00
June	1,520	87	306	.793	.88
July	1,060	34	123	.319	.37
August	47	26	34.7	.090	.10
September	145	27	41.3	.107	.12
The year	8,440	26	539	1.40	18.96
1930-31					
October	57	27	36.1	.094	.11
November	52	27	37.4	.097	.11
December	160	25	58.2	.151	.17
January	300	25	102	.264	.30
February	1,320	73	388	1.01	1.05
March	2,880	141	537	1.39	1.60
April	7,960	237	1,280	3.32	3.70
May	3,260	329	919	2.38	2.74
June	1,290	148	393	1.02	1.14
July	691	74	233	.604	.70
August	207	39	99.6	.258	.30
September	895	60	240	.622	.69
The year	7,960	25	359	.930	12.61
1931-32					
October	631	99	187	.484	.56
November	750	74	154	.399	.45
December	3,510	228	915	2.37	2.73
January	3,390	449	1,140	2.95	3.40
February	1,180	241	670	1.74	1.88
March	4,140	200	901	2.33	2.69
April	4,850	216	906	2.35	2.62
May	1,980	106	449	1.16	1.34
June	628	60	133	.545	.38
July	774	42	147	.381	.44
August	203	32	66.5	.172	.20
September	65	24	33.8	.088	.10
The year	4,850	24	476	1.23	16.79

OHIO BASIN—STATION NO. 21

LOYALHANNA CREEK AT NEW ALEXANDRIA

LOCATION.—Chain gage at highway bridge at New Alexandria, Westmoreland County. Zero of gage is 917.62 feet above mean sea level.

DRAINAGE AREA.—264 square miles.

RECORDS AVAILABLE.—August, 1913, to August, 1918; August, 1919 to July, 1923; November, 1925, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 4,500 second-feet Feb. 26 (gage height, 7.8 feet from graph based on gage readings); minimum, 6.6 second-feet Oct. 8 (gage height, 1.61 feet).

Maximum discharge during year ending Sept. 30, 1930, about 7,240 second-feet June 10 (gage height, 10.1 feet from graph based on gage readings); minimum, 12 second-feet Aug. 6 (gage height, 1.70 feet).

Maximum discharge during year ending Sept. 30, 1931, about 7,480 second-feet Apr. 14 (gage height, 10.3 feet from graph based on gage readings); minimum, 16 second-feet Sept. 25 (gage height, 1.75 feet).

Maximum discharge during year ending Sept. 30, 1932, 3,840 second-feet Jan. 30 (gage height, 7.2 feet from graph based on gage readings); minimum, 11 second-feet Aug. 14 (gage height, 1.69 feet).

1913-1918, 1919-1923, 1925-1932: Maximum gage height (estimated), 12.65 feet Oct. 20, 1927 (discharge not determined); minimum discharge, 2.4 second-feet Oct. 3, 1927 (gage height, 1.46 feet).

REMARKS.—Records good except those for extremely low and high stages, which are fair, and those for periods of ice effect, which are poor. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, of Loyalhanna Creek at New Alexandria, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928–29												
1	36	28	131	120	160	1,610	320	810	495	205	29	23
2	35	26	174	120	160	1,290	260	660	395	137	80	23
3	42	35	222	110	140	1,220	222	1,770	320	42	107	23
4	35	46	198	95	140	1,010	395	1,530	240	12	77	20
5	24	26	183	95	120	1,150	3,230	1,010	240	122	60	21
6	22	14	170	95	120	1,940	420	750	205	96	40	22
7	12	21	122	95	130	2,660	222	1,290	170	280	35	30
8	7.8	50	110	110	140	1,450	205	1,080	155	205	30	34
9	19	58	95	120	160	1,010	495	810	158	222	28	44
10	24	60	80	188	160	870	1,610	600	167	170	28	40
11	26	58	80	240	160	470	1,450	495	149	152	660	24
12	26	65	80	222	140	545	1,150	545	125	146	750	22
13	26	80	93	180	120	750	1,220	545	102	116	146	23
14	24	96	102	160	110	1,290	1,220	630	85	99	131	23
15	23	80	300	140	95	1,290	1,610	660	77	88	116	28
16	23	68	140	160	90	1,220	2,850	600	85	77	93	34
17	23	70	222	370	80	1,080	3,430	520	85	58	68	35
18	46	70	600	940	90	870	2,290	475	70	34	63	56
19	72	202	280	1,450	95	660	1,860	750	68	42	44	54
20	56	260	280	1,080	120	495	1,690	810	93	48	38	40
21	32	202	152	420	140	395	2,120	1,450	88	42	35	32
22	15	158	128	300	130	345	2,750	1,150	80	38	34	30
23	21	170	131	300	120	345	2,030	870	93	35	56	26
24	32	146	158	340	110	320	1,150	630	170	35	72	20
25	50	128	222	380	280	300	1,370	630	174	34	50	20
26	42	110	200	340	3,740	260	1,530	545	280	38	34	19
27	40	99	170	320	3,950	205	1,010	370	445	44	32	23
28	42	102	160	280	2,120	222	1,370	420	1,290	38	26	21
29	56	102	140	240	-------	240	1,530	2,120	1,150	35	26	18
30	50	125	120	200	-------	240	1,010	1,150	660	30	23	29
31	40	-------	110	170	-------	300	-------	750	-------	30	22	-------
1929–30												
1	26	64	255	562	130	938	303	236	92	106	20	17
2	243	58	240	756	140	876	762	221	78	81	21	18
3	2,120	71	230	727	150	938	562	213	76	81	18	21
4	1,270	161	220	642	200	846	462	178	68	74	15	20
5	500	124	210	536	700	756	343	152	58	66	15	21
6	296	103	202	438	470	670	325	185	66	112	14	21
7	224	112	228	374	350	938	351	182	71	106	14	27
8	178	76	247	378	290	1,040	356	152	58	87	20	66
9	136	74	239	410	350	907	325	133	61	66	19	61
10	115	74	221	438	410	786	365	118	3,720	52	15	43
11	98	64	210	397	340	1,100	329	103	2,940	43	14	34
12	89	68	232	462	296	816	308	112	970	47	16	31
13	98	71	651	712	406	846	287	109	588	56	20	49
14	84	100	1,220	354	486	786	392	115	369	61	31	45
15	61	1,140	1,470	670	415	642	263	127	279	58	41	43
16	45	1,390	884	562	356	588	275	145	210	56	47	56
17	68	841	588	462	287	511	321	161	1,120	47	45	66
18	66	907	81	374	296	850	317	236	1,040	43	41	56
19	54	1,100	1,240	325	321	1,390	415	438	670	36	33	52
20	56	816	1,160	291	338	1,040	351	511	406	34	24	45
21	52	588	670	260	397	642	317	397	296	20	21	45
22	58	415	438	210	360	536	438	283	224	20	24	41
23	201	356	370	180	351	438	410	221	182	18	21	36
24	164	304	300	160	467	383	369	255	165	17	21	33
25	84	243	250	150	4,650	351	347	199	217	15	26	38
26	76	217	230	145	4,550	351	321	170	168	15	28	30
27	68	199	250	140	2,440	300	275	155	139	28	30	21
28	64	308	462	138	1,310	267	243	139	121	26	28	20
29	52	283	462	135	-------	236	251	133	109	24	20	18
30	61	267	438	132	-------	271	239	115	95	20	20	31
31	74	-------	415	130	-------	255	-------	106	-------	21	18	-------

Daily discharge, in second-feet, of Loyalhanna Creek at New Alexandria, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930–31												
1	30	43	50	17	130	417	1,240	403	255	142	31	369
2	30	45	88	17	120	358	1,100	824	206	124	28	415
3	31	43	82	18	115	232	1,250	542	185	109	66	670
4	34	43	78	24	110	210	5,500	308	139	109	52	462
5	34	47	78	30	105	192	2,140	275	98	95	45	347
6	28	52	103	60	105	165	1,240	263	64	87	38	251
7	24	61	106	180	100	155	1,240	255	751	56	36	182
8	30	64	109	160	152	182	970	882	642	38	33	145
9	31	58	84	135	127	161	846	1,350	369	31	89	115
10	34	52	61	140	145	121	698	1,360	263	54	174	103
11	36	47	54	135	149	112	846	970	217	36	92	92
12	34	47	43	115	115	118	615	1,240	185	49	61	84
13	28	43	52	100	916	152	486	907	161	64	47	74
14	27	43	49	85	1,300	178	406	1,240	361	52	38	66
15	43	47	41	75	727	232	351	816	816	41	34	61
16	47	47	34	70	387	287	317	642	438	84	33	49
17	52	43	30	70	666	271	271	536	291	155	28	92
18	61	52	26	78	550	221	243	511	213	121	40	145
19	47	56	22	85	728	228	217	360	165	92	1,040	109
20	45	56	20	90	615	255	196	397	139	81	1,390	144
21	41	54	19	83	511	271	188	338	133	89	659	3,640
22	33	47	19	80	378	291	208	740	164	118	296	786
23	31	52	19	77	312	347	700	1,870	511	188	291	208
24	34	58	18	80	271	251	642	1,390	406	136	224	35
25	41	66	18	90	199	247	588	1,390	338	109	145	25
26	41	54	18	100	152	213	1,250	876	530	84	213	1,490
27	36	41	18	125	127	185	1,240	536	619	64	400	914
28	61	35	18	150	115	430	1,040	438	397	56	562	511
29	52	32	17	185	-------	727	698	369	283	47	511	360
30	52	38	17	155	-------	642	462	325	185	41	291	291
31	43	-------	17	140	-------	1,040	-------	351	-------	34	283	-------
1931–32												
1	221	103	615	329	876	145	3,000	239	78	38	23	31
2	174	92	406	748	786	136	2,000	192	38	36	19	23
3	155	81	343	1,040	756	130	1,100	149	34	45	21	17
4	139	74	304	970	907	115	938	136	64	47	19	18
5	118	66	369	846	786	127	727	130	106	41	19	15
6	106	66	360	1,500	698	165	486	139	81	87	20	15
7	98	66	300	1,390	615	161	365	136	54	89	23	15
8	236	61	202	1,040	727	150	271	133	43	115	21	16
9	251	61	236	756	698	140	369	238	66	68	18	16
10	178	58	334	615	536	132	410	702	52	54	18	16
11	152	61	564	486	511	130	383	1,140	43	45	18	16
12	155	66	1,310	406	462	128	562	1,040	64	31	23	15
13	152	98	2,800	374	387	127	588	846	68	28	23	16
14	135	98	2,140	343	308	126	486	1,170	71	28	15	15
15	362	95	1,390	317	259	125	562	816	106	26	18	15
16	334	92	1,170	308	236	220	588	562	221	31	18	16
17	782	71	670	338	365	727	438	462	263	28	20	14
18	820	92	536	406	338	1,210	392	351	139	24	65	14
19	602	87	438	308	291	1,390	338	275	101	18	87	14
20	243	78	378	271	247	970	300	243	92	14	41	15
21	206	92	317	255	221	1,240	267	217	109	28	24	14
22	165	158	511	263	251	2,520	232	188	87	58	20	14
23	158	127	756	294	206	1,430	217	165	61	61	21	14
24	145	109	1,040	716	145	972	188	133	49	38	16	14
25	142	98	1,040	670	165	756	232	130	43	33	20	12
26	127	92	938	536	196	727	213	121	45	30	15	14
27	106	92	642	562	174	772	178	101	52	38	15	14
28	127	106	486	462	174	1,470	158	95	74	41	13	14
29	121	145	438	397	171	1,550	145	92	61	47	17	14
30	106	504	360	2,640	-------	1,790	133	87	49	49	52	18
31	95	-------	300	1,380	-------	2,940	-------	81	-------	24	49	-------

Note.—Discharge estimated for periods of ice effect, Dec. 8-12, 26-31, 1928, Jan. 1-9, 14-16, Jan. 22 to Feb. 24, Dec. 1-6, 23-27, 1929, Jan. 21 to Feb. 11, Nov. 28 to Dec. 4, Dec. 16-31, 1930, Jan. 1 to Feb. 7, 1931, Mar. 8-16, 1932.

Monthly discharge, in second-feet, of Loyalhanna Creek at New Alexandria, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	72	7.8	33.0	0.125	0.14
November	260	14	91.8	.348	.39
December	600	80	173	.655	.76
January	1,450	95	303	1.15	1.33
February	3,950	80	469	1.78	1.85
March	2,660	205	840	3.18	3.67
April	3,430	205	1,400	5.30	5.91
May	2,120	370	852	3.23	3.72
June	1,290	68	264	1.00	1.12
July	280	12	88.7	.336	.39
August	750	22	97.8	.370	.43
September	56	18	28.6	.108	.12
The year	3,950	7.8	385	1.46	19.83
1929-30					
October	2,120	26	219	.830	.96
November	1,390	58	353	1.34	1.50
December	1,470	202	483	1.93	2.11
January	756	130	376	1.42	1.64
February	4,650	130	759	2.88	3.00
March	1,390	236	687	2.60	3.00
April	762	239	354	1.34	1.50
May	511	103	194	.735	.85
June	3,720	58	489	1.85	2.06
July	112	15	49.5	.188	.22
August	47	14	23.9	.091	.10
September	66	17	36.8	.139	.16
The year	4,650	14	332	1.26	17.10
1930-31					
October	61	24	38.4	.145	.17
November	66	32	48.9	.185	.21
December	109	17	45.4	.172	.20
January	185	17	95.1	.360	.42
February	1,300	100	337	1.28	1.33
March	1,040	112	287	1.09	1.26
April	5,500	188	906	3.43	3.83
May	1,870	255	732	2.77	3.19
June	816	64	317	1.20	1.34
July	188	31	83.4	.316	.36
August	1,390	28	235	.890	1.03
September	3,640	25	408	1.55	1.73
The year	5,500	17	293	1.11	15.07
1931-32					
October	820	95	223	.845	.97
November	504	58	103	.390	.44
December	2,800	202	700	2.65	3.06
January	2,640	255	677	2.56	2.95
February	907	145	431	1.63	1.76
March	2,940	115	733	2.78	3.20
April	3,000	133	542	2.05	2.29
May	1,170	81	339	1.28	1.48
June	263	34	80.5	.305	.34
July	115	14	43.2	.164	.19
August	87	13	25.5	.097	.11
September	31	12	16.5	.062	.07
The year	3,000	12	327	1.24	16.86

MONONGAHELA RIVER AT SOUTH BROWNSVILLE

LOCATION.—Staff gage at Lock 5, South Brownsville, Fayette County.

REMARKS.—The daily record of stage for this station was published in the annual Stream Flow Records of Pennsylvania Feb. 18, 1915, to Sept. 30, 1928. The intermittent use of flashboards on Dam No. 4 made it impossible to obtain a constant stage-discharge relation and consequently daily discharge has never been published.

The practice of publishing the daily record of stage was discontinued after Sept. 30, 1928. The records of stage at Lock No. 5 and at other locks on the Monongahela and Allegheny Rivers are obtained by the United States Engineer Office, Pittsburgh, Pa.

OHIO BASIN—STATION NO. 23

SOUTH FORK OF TEN MILE CREEK AT JEFFERSON

LOCATION.—Chain gage at highway bridge 1 mile southwest of Jefferson, Greene County, 3¼ miles below mouth of Ruff Creek, and 6 miles northeast of Waynesburg.

RECORDS AVAILABLE.—October, 1931, to September, 1932.

EXTREMES.—Maximum gage height recorded during year, 7.70 feet Jan. 30; minimum, 0.00 foot Sept. 22-30.

REMARKS.—Gage-height record good. Discharge not determined owing to lack of definition of rating curve. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge
1931	Feet	Second-feet	1932	Feet	Second-feet
Oct. 30	0.91	21.8	May 21	1.02	30.0
Oct. 30	.90	21.2	Aug. 29	.29	1.98

Daily mean gage height, in feet, 1931-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	0.87	2.75	4.75	2.51	1.14	4.79	1.03	0.62	0.51	0.56	0.30
2	-------	.85	2.10	4.75	2.32	1.09	3.32	.97	.55	.92	.48	.31
3	-------	.86	1.69	3.41	2.45	1.07	2.82	.92	.55	.94	.44	.28
4	-------	.76	1.69	2.76	3.11	1.21	1.25	.88	.53	.73	.40	.30
5	-------	.74	1.70	2.39	2.79	2.12	2.00	1.01	.49	1.15	.55	.31
6	-------	.72	1.52	4.45	2.50	1.98	1.93	1.00	.43	1.11	.45	.31
7	-------	.71	1.46	3.82	2.28	1.83	1.82	.97	.34	1.09	.38	.27
8	-------	.74	1.28	2.93	2.51	1.84	1.69	.88	.37	1.21	.29	.25
9	-------	.74	1.88	2.52	2.10	1.77	1.96	.77	.37	1.09	.27	.23
10	-------	.86	2.68	2.15	2.03	1.64	1.75	.96	.37	.86	.31	.23
11	-------	.74	3.52	1.90	1.93	1.55	1.71	1.65	.35	.72	1.26	.21
12	-------	.73	4.34	1.82	1.89	1.60	1.79	2.18	.41	.57	.68	.19
13	-------	.79	5.65	1.79	1.71	1.66	1.77	2.57	.43	.50	.60	.17
14	-------	1.11	4.84	1.66	1.57	1.50	1.74	2.05	.47	.46	.54	.16
15	-------	1.08	3.51	1.67	1.48	1.49	1.59	1.98	.43	.41	.48	.14
16	-------	1.01	2.74	1.85	1.45	1.48	1.49	1.69	1.05	1.18	.39	.13
17	-------	.99	2.63	1.71	1.58	2.95	1.43	1.47	.76	1.43	.32	.11
18	-------	.98	2.01	2.03	1.52	3.54	1.33	1.30	.81	.89	1.80	.10
19	-------	.95	1.82	1.98	1.38	2.61	1.31	1.17	.75	.74	2.05	.08
20	-------	.95	1.73	1.85	1.31	2.28	1.23	1.09	.53	.66	1.49	.05
21	-------	.95	1.59	1.74	1.21	3.16	1.21	1.01	.49	.54	.85	.03
22	-------	1.33	1.62	1.67	1.26	4.14	1.17	.94	.43	.42	.67	.00
23	-------	1.61	2.09	2.08	1.24	3.25	1.13	.92	.41	.37	.61	.00
24	-------	1.64	2.34	3.47	1.16	2.58	1.06	.79	.43	.32	.56	.00
25	-------	1.58	3.28	2.54	1.15	2.21	1.10	.75	.43	.31	.51	.00
26	-------	1.41	2.61	2.17	1.13	2.08	1.20	.70	.37	.28	.37	.00
27	-------	1.43	2.22	2.27	1.11	2.55	1.18	.66	.41	.29	.33	.00
28	-------	1.49	2.08	1.98	1.23	5.40	1.03	.72	.41	.29	.33	.00
29	0.92	1.42	1.93	1.95	1.23	5.44	1.03	.67	.49	.79	.31	.00
30	.91	2.65	1.75	5.95	-------	4.73	1.06	.67	.47	.71	.33	.00
31	.90	-------	1.60	3.55	-------	4.98	-------	.66	-------	.69	.31	-------

SOUTH FORK OF TEN MILE CREEK AT POLLOCK'S MILL

LOCATION.—Staff gage at highway bridge at Pollock's Mill, Greene County, 2 miles downstream from Jefferson.

DRAINAGE AREA.—190 square miles.

RECORDS AVAILABLE.—June, 1915, to December, 1931 (discontinued).

EXTREMES.—Maximum stage during the year ending Sept. 30, 1929, 5.80 feet (determined from hydrograph) Feb. 26; minimum, 1.08 feet Sept. 6, 7.

Maximum stage during year ending Sept. 30, 1930, 5.8 feet (determined from hydrograph) Nov. 18; minimum, 0.84 foot Aug. 15.

Maximum stage during year ending Sept. 30, 1931, 8.0 feet (determined from hydrograph) Apr. 4; minimum, 1.12 feet Oct. 6-18.

Maximum stage during period Oct. 1 to Nov. 30, 1931, 3.10 feet Oct. 9; minimum, 1.62 feet Oct. 8.

1915-1931: Maximum stage, 12.0 feet (determined from hydrograph) Mar. 21, 1916; minimum, 0.3 foot Sept. 30, 1919.

REMARKS.—Gage-height record good. Owing to poor channel conditions and frequent changes at control section it has not been possible to obtain a rating for the determination of discharge. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge
1929	Feet	Second-feet	1931	Feet	Second-feet
Apr. 25	2.15	241	Oct. 28	1.76	20.7
Apr. 25	2.14	244			

Daily Mean Gage Height, in feet, 1928-1931.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1.26	1.46	2.42	1.45	1.88	2.93	1.67	2.33	1.99	1.61	1.27	1.21
2	1.26	1.43	1.98	1.70	1.86	2.78	1.63	2.60	1.87	1.57	1.24	1.17
3	1.30	1.42	1.86	1.95	1.78	2.65	1.60	3.82	1.81	1.55	1.21	1.12
4	1.27	1.42	1.73	2.00	1.62	2.53	1.94	2.98	1.79	1.50	1.28	1.10
5	1.25	1.40	1.66	1.90	1.60	3.30	2.50	2.55	1.72	1.40	1.20	1.10
6	1.24	1.38	1.63	2.50	1.60	3.60	2.40	2.50	1.69	1.40	1.35	1.09
7	1.24	1.37	1.61	2.70	2.20	3.80	2.18	2.85	1.66	1.38	1.38	1.08
8	1.24	1.42	1.60	2.40	2.05	2.70	2.10	2.51	1.82	1.38	1.30	1.40
9	1.20	1.49	1.58	2.40	2.30	2.53	2.55	2.30	1.84	1.39	1.24	1.34
10	1.20	1.50	1.56	2.15	2.25	1.95	3.80	2.11	1.76	1.38	1.22	1.49
11	1.20	1.48	1.54	2.07	2.19	1.88	3.20	2.02	1.68	1.35	1.52	1.44
12	1.20	1.48	1.52	2.02	2.13	1.88	2.85	1.93	1.64	1.31	1.55	1.37
13	1.20	1.50	1.50	2.00	2.10	2.00	2.55	2.04	1.61	1.30	1.51	1.40
14	1.18	1.50	1.80	2.00	2.10	2.40	2.34	2.29	1.57	1.30	1.44	1.40
15	1.18	1.51	2.60	2.00	1.90	2.60	2.72	2.17	1.54	1.29	1.43	1.38
16	1.18	1.51	2.19	2.00	1.70	2.45	3.60	2.11	1.53	1.25	1.29	1.35
17	1.18	1.49	2.20	2.00	1.66	2.25	4.10	2.06	1.51	1.20	1.24	1.63
18	1.18	1.47	2.34	2.40	1.61	2.10	2.90	1.76	1.50	1.18	1.23	1.75
19	1.94	1.47	2.19	3.60	1.60	2.00	2.53	2.39	1.57	1.18	1.39	1.64
20	1.68	1.79	2.09	2.75	1.58	1.90	2.50	2.65	1.51	1.17	1.39	1.50
21	1.55	1.85	2.35	2.34	1.56	1.85	2.67	4.00	1.46	1.16	1.32	1.41
22	1.48	1.70	1.85	2.25	1.55	1.81	2.95	3.00	1.43	1.14	1.30	1.40
23	1.47	1.67	1.72	3.75	1.53	2.05	2.53	2.52	1.41	1.14	1.42	1.35
24	1.42	1.63	1.65	2.90	1.52	2.00	2.38	2.28	1.40	1.12	1.38	1.30
25	1.40	1.58	1.59	3.40	1.60	1.90	2.40	2.15	1.38	1.14	1.65	1.30
26	1.40	1.53	1.53	2.90	4.70	1.93	2.98	2.01	1.38	1.16	1.53	1.30
27	1.40	1.52	1.47	2.65	3.70	1.90	2.44	1.95	1.38	1.16	1.39	1.30
28	1.44	1.52	1.41	2.45	3.40	1.86	2.31	3.70	2.18	1.65	1.36	1.30
29	1.46	1.39	1.40	2.15	-------	1.73	2.89	3.40	2.30	1.48	1.32	1.30
30	1.48	1.50	1.38	1.95	-------	1.70	2.44	2.55	1.85	1.37	1.28	1.29
31	1.48	-------	1.36	1.90	-------	1.70	-------	2.12	-------	1.32	1.25	-------

Daily Mean Gage Height, in feet, of South Fork of Ten Mile Creek at Pollock's Mill, 1928-1931—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1.25	1.78	1.99	2.50	1.70	2.35	2.22	1.60	1.44	1.40	0.99	1.06
2	2.40	1.78	1.95	2.47	1.75	2.65	3.35	1.58	1.42	1.40	.98	1.06
3	4.05	1.89	1.91	2.43	1.94	2.59	2.65	1.55	1.40	1.78	.96	1.06
4	3.20	2.31	1.81	2.33	2.25	2.55	2.45	1.51	1.38	1.66	.96	1.06
5	2.54	2.13	1.71	2.12	3.24	2.51	2.25	1.50	1.36	1.53	.94	1.06
6	2.19	1.94	1.86	2.02	2.55	2.75	2.14	1.50	1.33	1.44	.92	1.06
7	2.04	1.85	2.06	2.00	2.43	3.30	2.10	1.50	1.30	1.50	.90	1.06
8	1.94	1.75	2.18	2.00	2.24	3.90	2.35	1.50	1.30	1.49	.89	1.20
9	1.81	1.70	2.06	1.99	2.09	3.10	2.15	1.50	1.29	1.43	.89	1.17
10	1.74	1.69	1.99	1.99	2.55	2.66	2.05	1.48	2.10	1.38	.88	1.13
11	1.68	1.68	1.90	1.98	2.33	3.40	2.01	1.46	2.70	1.38	.88	1.10
12	1.67	1.67	1.95	1.98	2.05	2.90	1.97	1.48	2.15	1.32	.87	1.09
13	1.66	1.65	3.10	2.13	1.98	2.65	1.92	1.76	1.85	1.30	.86	1.10
14	1.63	1.72	3.90	2.49	1.98	2.45	1.88	1.68	1.67	1.29	.86	1.14
15	1.62	3.25	3.15	2.37	1.98	2.25	1.86	1.74	1.57	1.29	.84	1.16
16	1.61	2.60	2.75	2.25	1.96	2.09	1.86	1.94	1.50	1.29	.98	1.16
17	1.68	3.17	2.40	2.05	1.93	2.05	1.84	1.75	1.74	1.28	1.10	1.20
18	1.67	5.40	2.74	2.00	1.90	3.15	1.91	1.70	1.85	1.26	1.09	1.18
19	1.66	3.50	2.74	1.98	1.88	3.90	1.96	1.95	1.65	1.23	1.09	1.14
20	1.66	2.66	2.70	1.96	1.86	2.71	1.87	2.05	1.57	1.20	1.08	1.14
21	1.66	2.48	2.20	1.93	1.83	2.48	1.81	1.92	1.53	1.17	1.06	1.14
22	1.81	2.29	2.00	1.91	1.80	2.25	1.80	1.77	1.49	1.13	1.04	1.14
23	2.20	2.13	2.00	1.89	1.80	2.13	1.75	1.69	1.44	1.10	1.06	1.14
24	1.94	2.04	1.99	1.84	1.80	2.10	1.71	1.65	1.41	1.10	1.09	1.15
25	1.82	1.99	1.97	1.80	2.50	2.07	1.68	1.62	2.55	1.09	1.10	1.19
26	1.76	1.91	1.94	1.80	3.70	2.65	1.68	1.63	1.95	1.08	1.10	1.19
27	1.69	1.88	1.94	1.78	3.40	2.32	1.66	1.56	1.82	1.06	1.09	1.19
28	1.66	2.10	2.85	1.76	2.70	2.55	1.63	1.50	1.72	1.04	1.09	1.19
29	1.66	2.09	2.65	1.75	-------	2.55	1.62	1.50	1.63	1.02	1.09	1.18
30	1.68	2.02	2.49	1.74	-------	2.36	1.62	1.48	1.48	1.02	1.08	1.17
31	1.79	-------	2.63	1.72	-------	2.28	-------	1.47	-------	1.00	1.08	-------
1930-31												
1	1.16	1.18	1.16	1.40	1.60	1.63	2.70	1.62	1.77	1.50	1.27	1.85
2	1.16	1.18	1.16	1.40	1.58	2.05	3.35	1.60	1.74	1.58	1.25	2.30
3	1.16	1.18	1.15	1.40	1.56	1.95	3.05	1.62	1.72	1.85	1.21	3.20
4	1.14	1.18	1.14	1.40	1.54	1.85	5.52	1.62	1.71	1.72	1.20	2.80
5	1.14	1.18	1.17	1.39	1.52	1.75	3.30	1.58	1.80	1.55	1.20	2.55
6	1.12	1.18	1.40	1.40	1.50	1.71	2.85	1.56	1.98	1.43	1.20	2.20
7	1.12	1.18	1.30	1.70	1.50	1.66	2.65	1.63	1.85	1.38	1.20	2.00
8	1.12	1.18	1.35	1.70	1.50	1.65	2.34	2.40	1.98	1.35	1.20	1.88
9	1.12	1.18	1.40	1.70	1.60	1.80	2.19	2.04	1.99	1.31	1.20	1.80
10	1.12	1.18	1.40	1.66	1.70	1.85	2.10	2.40	1.98	1.45	1.00	1.76
11	1.12	1.18	1.38	1.58	1.80	1.80	2.06	2.15	1.87	1.53	1.75	1.60
12	1.12	1.18	1.35	1.50	1.80	1.85	1.98	1.95	1.80	1.43	1.72	1.54
13	1.12	1.18	1.32	1.50	1.80	2.05	1.88	2.20	1.78	1.37	1.55	1.50
14	1.12	1.19	1.30	1.48	2.40	2.03	1.82	3.25	1.62	1.33	1.44	1.49
15	1.12	1.17	1.30	1.48	1.90	2.00	1.78	2.30	1.80	1.30	1.40	1.47
16	1.12	1.17	1.30	1.46	1.90	2.15	1.75	2.27	1.85	1.30	1.40	1.46
17	1.12	1.16	1.30	1.46	1.80	2.09	1.60	2.06	1.73	1.30	1.38	1.50
18	1.12	1.16	1.30	1.45	1.95	2.04	1.60	1.98	1.63	1.33	1.35	3.00
19	1.14	1.16	1.30	1.45	2.30	1.95	1.60	1.90	1.57	1.40	1.31	2.65
20	1.14	1.16	1.30	1.45	2.30	1.89	1.60	1.90	1.52	1.55	1.30	2.18
21	1.14	1.16	1.20	1.47	2.15	1.88	1.60	1.89	1.47	1.80	1.33	2.14
22	1.14	1.16	1.29	1.50	1.95	1.85	1.57	1.85	1.41	1.90	1.36	2.14
23	1.14	1.16	1.28	1.50	1.88	1.81	1.70	2.20	1.48	1.68	1.39	2.41
24	1.14	1.16	1.28	1.50	1.83	1.80	1.69	2.20	1.50	1.57	1.40	2.80
25	1.14	1.16	1.27	1.50	1.73	1.90	1.66	2.16	1.50	1.48	1.38	2.35
26	1.14	1.16	1.32	1.50	1.67	2.45	1.66	2.09	1.50	1.40	1.36	3.15
27	1.14	1.16	1.36	1.50	1.64	2.25	1.93	1.99	1.58	1.38	1.90	2.82
28	1.16	1.16	1.36	1.60	1.61	2.15	1.79	1.93	2.05	1.36	2.40	2.45
29	1.16	1.16	1.36	1.60	-------	2.52	1.72	1.83	1.85	1.32	2.60	2.25
30	1.16	1.16	1.39	1.60	-------	2.32	1.66	1.80	1.60	1.30	2.25	2.05
31	1.18	-------	1.40	1.60	-------	2.15	-------	1.80	-------	1.29	2.05	-------

Daily Mean Gage Height, in feet, of South Fork of Ten Mile Creek at Pollock's Mill, 1928-1931—Continued.

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1931			1931			1931		
1	1.90	1.76	11	2.06	1.68	21	1.97	1.80
2	1.84	1.76	12	2.11	1.68	22	1.92	1.86
3	1.79	1.76	13	2.10	1.89	23	1.87	1.90
4	1.75	1.74	14	2.09	1.89	24	1.84	1.90
5	1.70	1.72	15	2.08	1.89	25	1.82	1.90
6	1.67	1.70	16	2.08	1.89	26	1.81	1.90
7	1.64	1.69	17	2.15	1.88	27	1.80	1.88
8	1.62	1.68	18	2.11	1.84	28	1.80	1.88
9	2.95	1.68	19	2.06	1.82	29	1.78	1.86
10	2.50	1.68	20	2.00	1.80	30	1.78	1.86
						31	1.77	-------

OHIO BASIN—STATION NO. 25

YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD.

LOCATION.—Chain gage at highway bridge at Friendsville, Garrett County. Zero of gage is 1,467.82 feet above mean sea level.

DRAINAGE AREA.—295 square miles.

RECORDS AVAILABLE.—August, 1898, to December, 1904; September, 1922, to April, 1932 (discontinued).

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 4,570 second-feet Apr. 10 (gage height, 8.6 feet from graph based on gage readings); minimum, 63 second-feet Oct. 19, 21, Sept. 1 (gage height, 4.05 feet).

Maximum discharge during year ending Sept. 30, 1930, 6,700 second-feet Oct. 2 (gage height, 10.0 feet from graph based on gage readings); minimum, 37 second-feet Sept. 29 (gage height, 3.89 feet).

Maximum discharge during year ending Sept. 30, 1931, 3,350 second-feet Sept. 26 (gage height, 7.70 feet); minimum, 12 second-feet Nov. 18 (gage height, 3.65 feet).

1898-1904, 1922-1931: Maximum gage height (estimated), 11.9 feet Feb. 3, 1923 (discharge not determined); minimum, 1.75 feet Oct. 2-23, 1923, (discharge not determined).

REMARKS.—Records poor. Daily discharge not published after Sept. 30, 1931. Diurnal regulation from operations at a hydroelectric plant a few miles upstream. Gage not read during Dec. 3-5, 28-31, 1930 or Jan. 1-25, 1931. Gage-height observer paid by Associated Gas & Electric Co.

Daily discharge, in second-feet, of Youghiogheny River at Friendsville, Md., 1928-1931.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	235	85	3,480	306	482	1,470	437	624	786	418	235	110
2	235	92	1,820	663	394	1,070	354	586	1,160	418	214	281
3	214	85	1,070	550	263	985	371	1,820	786	418	227	306
4	227	92	828	371	240	1,030	550	1,580	786	449	174	227
5	235	97	663	340	240	1,580	1,700	1,260	663	244	400	193
6	227	130	586	300	220	2,070	1,210	1,120	586	281	332	201
7	102	110	449	301	190	2,310	908	1,470	515	156	343	163
8	174	97	377	312	190	1,580	704	1,160	437	201	343	97
9	227	110	300	243	190	985	744	1,070	291	235	227	449
10	193	124	280	412	190	624	2,700	908	586	140	227	186
11	186	97	260	908	240	868	2,960	586	437	186	163	156
12	244	156	260	624	260	704	1,700	515	360	174	449	119
13	214	235	306	382	260	704	1,120	744	377	163	418	163
14	163	332	437	300	240	1,030	828	1,070	360	97	332	281
15	163	332	1,260	280	220	1,120	786	744	281	227	306	174
16	174	235	985	300	170	1,030	1,700	663	156	235	332	332
17	174	201	868	515	160	1,160	2,190	586	343	235	332	306
18	78	186	946	868	160	946	1,700	388	388	258	156	227
19	69	360	786	2.190	170	786	1,700	586	322	174	306	515
20	110	1,030	624	1,820	240	663	1,580	1,260	306	85	281	388
21	78	908	515	946	260	550	1,820	1,580	306	156	272	322
22	214	744	431	704	240	515	3,220	1,580	244	306	272	156
23	186	586	366	1,470	190	449	2,190	1,160	235	306	332	377
24	201	482	280	1,260	160	412	1,260	946	586	586	306	281
25	163	449	260	1,260	190	449	985	663	482	272	163	272
26	97	400	280	1,580	663	406	1,260	586	624	235	322	281
27	97	377	437	946	3,090	437	1,120	624	400	85	322	306
28	102	343	437	786	2,070	394	1,070	744	449	69	281	306
29	124	332	306	624	-------	360	1,070	868	586	332	258	110
30	227	1,070	281	550	-------	360	786	1,070	291	332	214	193
31	92	-------	267	550	-------	349	-------	1.260	-------	272	235	-------
1929-30												
1	193	349	400	624	170	908	301	482	105	110	53	108
2	1,280	322	380	786	185	786	704	437	85	116	124	210
3	5,770	586	365	946	230	624	786	338	90	116	53	137
4	3,350	1,210	360	946	415	586	744	366	80	90	174	87
5	2,070	1,260	365	704	1,260	515	586	312	73	85	140	153
6	1,120	828	371	586	1,030	663	482	240	73	105	134	137
7	1,030	704	586	550	868	828	786	301	85	116	134	87
8	744	482	908	515	868	985	1,160	218	85	85	46	189
9	624	349	908	515	400	946	1,210	186	85	85	134	137
10	515	281	786	482	624	946	1,360	186	485	67	59	143
11	482	322	786	443	868	908	985	171	994	116	124	57
12	227	425	744	449	828	985	704	150	431	67	146	201
13	377	249	1,140	550	1,160	868	550	160	281	73	63	189
14	377	406	2,190	515	1,470	1,070	482	160	206	110	156	137
15	349	550	1,820	449	868	786	425	160	174	105	63	153
16	437	786	1,360	418	704	663	366	186	156	156	167	153
17	425	786	1,030	343	908	586	322	197	258	80	85	153
18	377	3,360	946	317	786	663	322	227	235	156	182	143
19	193	3,090	744	231	780	1,640	394	301	156	67	156	206
20	143	1,700	704	200	786	1,070	354	338	140	59	167	210
21	366	1,210	400	185	744	868	312	286	116	46	140	52
22	550	946	330	180	704	663	425	253	97	110	140	106
23	704	663	310	175	586	515	322	210	90	140	146	57
24	550	515	305	175	663	482	301	197	182	140	61	143
25	406	663	305	175	1,160	586	286	174	174	134	253	143
26	272	550	310	175	1,470	550	253	182	281	59	163	171
27	249	624	365	180	1,120	322	218	156	206	63	143	218
28	218	663	828	185	1,160	312	197	146	222	174	143	61
29	377	663	908	180	-------	312	197	140	193	140	95	102
30	388	515	908	175	-------	322	178	140	124	110	153	171
31	388	-------	624	170	-------	322	-------	124	-------	124	61	-------

Daily discharge, in second-feet, of Youghiogheny River at Friendsville, Md., 1928-1931—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	143	71	220	-------	437	629	985	449	394	227	201	343
2	52	71	190	-------	338	1,120	946	371	425	227	97	360
3	217	93	180	-------	377	828	946	449	482	110	235	360
4	112	71	200	-------	272	663	2,600	371	296	140	272	515
5	113	83	250	-------	214	515	2,190	291	312	156	235	418
6	189	65	350	-------	296	400	1,360	301	394	235	214	235
7	143	52	482	-------	437	332	1,070	1,560	286	201	201	174
8	57	37	306	-------	437	343	1,410	1,120	327	235	214	322
9	102	71	197	-------	1,190	317	1,700	946	338	392	110	206
10	276	95	134	-------	1,840	253	1,160	744	394	291	110	281
11	218	71	140	-------	985	281	1,120	624	231	400	186	281
12	153	32	150	-------	704	253	946	1,800	240	201	163	227
13	95	37	160	-------	766	400	744	2,960	189	272	174	140
14	83	30	119	-------	1,580	235	786	1,820	206	227	186	281
15	78	37	110	-------	1,260	317	482	1,120	721	193	214	291
16	79	32	80	-------	828	515	412	828	449	174	130	322
17	231	37	60	-------	704	431	354	663	349	343	201	281
18	95	19	50	-------	985	354	354	550	327	258	244	332
19	95	28	55	-------	1,030	449	332	550	189	85	306	437
20	218	105	55	-------	946	550	253	515	153	258	227	418
21	178	75	50	-------	828	586	201	704	143	186	388	586
22	143	59	50	-------	624	663	210	1,400	227	174	908	449
23	83	35	50	-------	515	624	431	2,070	1,160	97	744	482
24	189	31	45	-------	482	586	303	1,950	1,210	92	586	550
25	78	80	45	-------	412	946	696	1,580	201	174	449	449
26	78	46	60	1,820	371	1,120	1,210	1,160	110	97	377	1,920
27	95	69	70	1,470	291	1,120	1,470	828	227	214	332	1,450
28	61	35	-------	1,260	253	1,280	985	624	156	306	437	1,880
29	71	28	-------	1,160	-------	2,700	744	482	235	214	343	744
30	71	35	-------	663	-------	1,890	550	449	227	227	156	482
31	52	-------	-------	586	-------	1,120	-------	425	-------	73	437	-------

Note.—Discharge estimated for periods of ice effect, Dec. 9-12, 24-26, 1928, Jan. 5, 6, 14-16, Feb. 4-25, Dec. 1-5, 22-27, 1929, Jan. 20 to Feb. 4, Dec. 1-6, 16-27, 1930.

Monthly discharge, in second-feet, of Youghiogheny River at Friendsville, Md., 1928-1931.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	244	69	169	0.573	0.66
November	1,070	85	329	1.12	1.25
December	3,480	260	660	2.24	2.58
January	1,580	280	734	2.49	2.87
February	3,090	160	414	1.40	1.46
March	2,310	349	884	3.00	3.46
April	3,220	354	1,360	4.61	5.14
May	1,820	388	962	3.26	3.76
June	1,160	156	471	1.60	1.78
July	586	69	250	.847	.98
August	449	156	283	.959	1.11
September	515	97	249	.844	.94
The year	3,480	69	564	1.91	25.99

Monthly discharge, in second-feet, of Youghiogheny River at Friendsville, Md., 1928-1931—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	5,770	143	792	2.68	3.09
November	3,360	249	835	2.83	3.16
December	2,190	305	725	2.46	2.84
January	946	170	404	1.37	1.58
February	1,470	170	815	2.76	2.87
March	1,640	312	719	2.44	2.81
April	1,360	178	524	1.78	1.99
May	482	124	230	.780	.90
June	994	73	199	.675	.75
July	174	46	103	.349	.40
August	253	46	124	.420	.48
September	218	52	141	.478	.53
The year	5,770	46	465	1.58	21.40
1930-31					
October	276	52	124	.420	.48
November	105	19	54.0	.183	.20
December 1-27	482	45	143	.485	.49
January 26-31	1,820	586	1,160	3.93	.88
February	1,840	214	693	2.35	2.45
March	2,700	235	704	2.39	2.76
April	2,600	201	898	3.04	3.39
May	2,960	291	958	3.25	3.75
June	1,210	110	353	1.20	1.34
July	400	73	207	.702	.81
August	908	97	293	.993	1.14
September	1,920	140	511	1.73	1.93

OHIO BASIN—STATION NO. 26

YOUGHIOGHENY RIVER AT CONNELLSVILLE

LOCATION.—Water-stage recorder at Crawford Avenue Bridge at Connellsville, Fayette County. Zero of gage is 860.13 feet above mean sea level.

DRAINAGE AREA.—1,320 square miles.

RECORDS AVAILABLE.—July, 1908, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 19,200 second-feet Feb. 27; maximum gage height, 10.17 feet, affected by ice, Feb. 26; minimum discharge, 44 second-feet Oct. 16 (gage height, 0.28 foot).

Maximum discharge during year ending Sept. 30, 1930, 30,700 second-feet Oct. 3 (gage height, 12.00 feet); minimum, 38 second-feet Sept. 24 (gage height, 0.31 foot).

Maximum discharge during year ending Sept. 30, 1931, 21,400 second-feet Apr. 4 (gage height, 9.95 feet); minimum, 27 second-feet Nov. 29 (gage height, 0.23 foot).

Maximum discharge during year ending Sept. 30, 1932, 25,900 second-feet Apr. 1 (gage height, 11.00 feet); minimum, 92 second-feet Sept. 13 (gage height, 0.58 foot).

1908-1932: Maximum discharge, 65,900 second-feet Mar. 29, 1924 (gage height, 20.5 feet from graph based on gage readings); minimum, 11 second-feet Sept. 23, 26, 27, 1908, Oct. 18, 1910 (gage height, 0.11 foot).

REMARKS.—Records excellent except those for estimated periods, which are fair. Regulation from operation of hydroelectric plants upstream. Gage-height record and results of several discharge measurements furnished by West Penn Power Co.

Daily discharge, in second-feet, of Youghiogheny River at Connellsville, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	380	295	9,520	930	1,620	8,710	1,740	3,490	3,830	1,620	410	380
2	295	196	5,800	1,510	1,300	6,020	1,510	3,000	3,000	1,510	410	295
3	322	180	3,490	1,510	1,060	4,560	1,400	6,240	2,260	1,300	410	177
4	322	188	2,700	1,300	1,060	5,170	1,510	6,240	1,990	1,100	1,510	245
5	322	204	2,120	1,020	1,000	5,800	6,710	4,760	1,740	800	1,060	295
6	295	245	1,990	1,250	1,000	9,230	8,715	4,010	1,620	680	760	295
7	350	270	1,510	800	1,100	9,800	5,380	5,800	1,350	885	575	295
8	295	295	1,300	800	1,100	6,950	3,830	5,170	1,620	1,060	540	975
9	173	322	1,160	760	1,200	5,170	3,660	4,190	2,260	760	470	930
10	232	410	840	1,860	1,200	3,490	8,190	3,490	1,510	720	380	930
11	270	440	760	2,700	1,100	3,000	10,700	3,000	1,350	645	505	575
12	227	470	930	1,860	1,000	4,010	7,190	2,400	1,200	505	1,350	350
13	245	645	885	1,200	950	5,590	4,960	3,160	1,100	505	1,160	270
14	322	1,110	1,160	800	900	7,680	3,830	3,160	975	575	840	227
15	245	1,020	4,010	900	850	8,970	3,830	3,160	885	470	720	440
16	93	840	3,490	1,000	850	7,930	8,190	2,700	760	410	575	440
17	148	760	2,850	1,200	900	7,430	13,500	2,260	645	470	540	1,100
18	218	645	3,490	2,400	950	5,170	9,510	1,990	760	410	470	1,300
19	240	680	3,320	6,710	1,000	4,190	7,680	2,400	800	350	410	1,200
20	165	2,260	2,550	6,020	1,100	3,490	6,950	3,660	760	270	410	800
21	204	2,550	1,990	3,830	1,200	3,000	7,190	4,190	720	196	440	680
22	154	1,860	1,300	3,000	1,100	2,700	10,100	4,960	680	295	410	610
23	148	1,740	1,250	5,170	1,000	2,700	8,450	4,010	760	322	720	410
24	270	1,510	1,250	5,170	1,000	2,550	5,800	3,320	1,350	322	1,620	350
25	322	1,400	1,200	4,960	1,000	2,260	4,760	2,850	1,740	380	1,020	440
26	322	1,300	1,110	5,590	6,950	2,120	6,950	2,260	1,510	540	645	410
27	322	1,110	1,160	3,830	16,800	2,120	6,950	1,860	1,400	540	540	410
28	232	1,160	1,300	3,160	12,500	1,990	5'170	1,990	2,260	380	505	410
29	295	1,160	1,250	2,260	-------	1,620	5,170	6,710	4,560	222	440	440
30	380	2,120	975	1,510	-------	1,510	4,190	5,590	2,550	270	410	380
31	295	-------	800	1,620	-------	1,740	-------	4,010	-------	470	350	-------
1929-30												
1	211	1,270	1,200	2,680	730	4,460	1,540	1,340	441	545	118	161
2	5,980	1,120	1,200	3,560	1,370	4,150	2,740	1,590	390	580	105	114
3	25,100	1,370	1,220	4,530	961	3,490	3,470	1,420	357	484	102	84
4	12,600	4,340	1,250	4,230	1,450	3,020	2,850	1,250	308	429	126	124
5	7,420	3,330	1,290	2,880	3,740	2,700	2,370	1,070	286	368	74	124
6	4,370	2,600	1,340	2,850	3,700	3,250	2,020	1,060	268	383	127	100
7	2,940	2,000	1,600	2,520	2,880	3,740	2,570	1,050	272	404	140	190
8	2,420	1,710	4,150	2,390	2,500	4,610	4,130	1,050	277	374	123	274
9	1,960	1,420	4,100	2,470	2,150	4,610	3,940	908	290	290	113	217
10	1,590	1,290	2,850	2,470	2,570	4,260	4,530	785	2,470	286	92	225
11	1,360	1,200	2,440	2,060	3,020	4,310	4,230	717	6,950	231	116	211
12	1,210	1,190	2,370	1,980	2,700	5,100	3,380	751	3,220	215	63	156
13	1,160	1,230	3,880	2,600	3,900	4,150	2,680	692	1,900	351	78	123
14	853	1,330	8,630	2,600	5,440	5,100	2,300	692	1,390	399	148	223
15	823	2,310	7,610	2,470	3,980	4,150	2,090	828	1,100	357	180	184
16	961	3,290	5,460	2,130	2,600	3,490	1,830	917	1,010	359	223	137
17	1,300	3,070	4,230	1,780	2,450	3,020	1,770	881	2,830	286	166	170
18	1,310	11,300	3,840	1,290	2,700	3,250	1,650	785	2,860	235	345	207
19	1,110	11,300	4,330	686	2,810	8,190	1,540	961	1,900	203	268	191
20	926	6,690	4,430	824	3,140	6,580	1,590	1,480	1,320	170	262	168
21	658	4,830	2,850	1,580	3,620	4,630	1,480	1,270	1,020	156	202	249
22	863	3,660	2,300	1,300	2,910	3,560	2,880	1,010	802	136	185	172
23	3,080	2,940	2,230	1,080	2,700	2,850	2,659	863	666	146	148	100
24	2,640	2,440	2,160	896	3,020	2,440	2,160	828	1,500	203	134	80
25	1,770	2,090	1,770	1,010	4,980	2,230	1,960	760	2,530	177	195	119
26	1,650	2,090	1,770	1,050	6,620	2,300	1,830	692	1,540	166	125	158
27	1,310	2,020	1,650	886	8,190	2,090	1,650	626	1,160	162	166	175
28	1,070	2,440	2,440	1,110	5,790	1,590	1,480	596	998	139	185	244
29	1,180	2,200	3,560	983	-------	1,650	1,320	531	802	144	178	183
30	1,140	1,500	3,020	1,070	-------	1,830	1,280	478	603	154	173	99
31	1,190	-------	2,850	854	-------	1,710	-------	542	-------	144	188	-------

Daily discharge, in second-feet, of Youghiogheny River at Connellsville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	65	120	116	170	1,590	2,040	4,930	2,440	1,830	496	354	1,350
2	127	105	217	160	1,200	4,630	6,000	2,090	1,590	463	268	1,240
3	115	103	204	170	998	3,560	5,490	2,090	1,420	1,180	277	2,090
4	102	75	211	200	944	2,850	17,700	2,090	1,360	993	294	1,830
5	189	103	208	300	821	2,230	12,300	1,650	1,200	1,220	534	1,540
6	189	103	271	1,160	634	1,830	7,710	1,480	1,300	662	381	1,340
7	113	82	740	1,770	776	1,590	6,220	1,480	1,240	619	343	950
8	101	87	1,110	1,420	917	1,480	5,140	7,820	1,170	630	292	742
9	126	81	890	1,130	1,660	1,420	6,000	6,180	1,280	574	308	810
10	115	66	626	1,090	4,730	1,230	5,460	4,930	1,200	1,730	1,350	722
11	114	75	541	919	3,200	980	4,730	3,940	989	3,970	1,600	648
12	223	94	423	734	2,440	953	4,040	3,290	802	2,010	846	580
13	226	98	545	650	2,230	917	3,290	6,760	734	1,130	549	446
14	114	74	524	592	5,780	1,350	2,760	13,900	661	908	411	444
15	93	56	349	441	4,900	2,250	2,370	8,670	976	719	373	394
16	129	39	237	380	3,560	2,520	2,020	5,900	1,200	545	321	549
17	125	60	134	390	2,940	2,160	1,770	4,430	917	799	315	591
18	114	56	105	430	3,290	1,900	1,710	3,470	734	976	210	1,590
19	246	69	90	480	4,230	1,960	1,590	2,760	658	1,170	474	1,360
20	208	82	85	840	4,040	2,370	1,290	2,300	554	649	984	980
21	116	77	80	1,180	3,380	2,440	1,170	3,250	412	607	1,230	674
22	142	92	80	1,040	2,760	2,600	1,130	4,040	373	592	2,500	1,260
23	145	129	75	908	2,300	2,600	1,870	5,680	570	599	2,120	1,070
24	142	126	75	845	2,020	2,440	2,160	9,600	1,180	831	1,320	1,830
25	142	121	75	751	1,770	3,250	3,010	6,900	828	992	1,120	1,450
26	145	78	100	1,840	1,650	5,460	4,210	5,350	602	579	960	4,130
27	156	90	140	4,530	1,350	4,930	6,670	3,940	718	479	1,140	6,580
28	128	60	200	4,530	1,200	4,430	5,140	3,020	908	331	1,710	3,630
29	126	65	330	3,160	-------	8,160	3,840	2,300	666	417	2,760	2,500
30	101	70	220	2,300	-------	7,220	3,020	2,020	573	382	2,300	1,830
31	123	-------	180	1,830	-------	4,930	-------	1,830	-------	403	1,590	-------
1931-32												
1	1,350	580	4,430	1,710	5,040	1,300	21,800	1,090	666	951	835	453
2	1,140	585	2,740	2,500	4,040	1,220	12,500	1,480	682	817	788	448
3	971	569	1,830	3,380	3,750	1,150	10,600	1,540	657	854	936	406
4	926	484	1,540	2,760	6,460	1,110	7,370	1,350	667	666	1,810	411
5	726	472	1,710	2,370	13,900	1,630	5,460	1,360	585	807	1,260	325
6	692	440	1,770	4,530	7,830	2,020	4,330	1,350	481	1,360	998	159
7	675	390	1,540	8,900	5,350	1,930	3,660	1,360	557	1,490	699	155
8	801	373	1,270	6,440	4,830	1,340	3,110	1,050	612	1,650	666	394
9	1,180	352	1,410	4,830	5,350	1,230	2,680	3,080	606	2,090	748	386
10	953	333	4,640	3,840	4,130	1,130	2,370	6,220	544	1,510	744	387
11	794	409	5,980	2,940	3,840	1,050	2,090	7,370	504	1,010	751	319
12	685	552	13,500	2,440	2,290	1,000	2,520	7,810	535	1,020	682	264
13	612	488	12,400	2,230	2,520	980	2,940	12,400	582	892	512	145
14	610	674	13,400	2,160	2,090	970	2,680	9,720	1,520	787	451	411
15	634	1,080	10,500	1,830	1,830	960	3,660	7,130	1,160	676	404	403
16	854	858	6,920	1,900	1,960	1,000	3,560	5,140	1,900	926	308	395
17	1,710	734	4,830	1,770	2,160	2,200	2,850	4,130	1,590	777	469	420
18	2,440	692	3,660	1,710	2,850	5,000	2,440	3,290	1,220	544	387	334
19	1,650	718	2,940	1,650	2,300	6,770	2,440	2,760	881	535	1,540	271
20	1,270	704	2,520	1,540	1,960	7,130	2,090	2,370	630	591	1,170	162
21	1,020	504	2,230	1,370	1,650	7,130	1,960	2,090	1,130	631	649	400
22	917	478	2,230	1,340	1,540	9,840	1,830	1,650	1,140	3,540	473	385
23	776	441	3,020	1,530	1,710	10,100	1,540	1,290	918	1,810	393	377
24	692	511	3,150	4,590	1,480	6,670	1,300	1,320	721	1,080	535	378
25	635	456	5,240	4,230	1,410	5,240	1,210	1,310	620	679	506	324
26	633	467	4,230	3,200	1,460	4,530	1,370	1,210	559	613	478	258
27	559	435	3,200	3,020	1,270	5,360	1,370	1,120	487	815	456	123
28	545	472	2,600	3,020	1,090	8,110	1,310	1,020	662	1,540	380	225
29	538	547	2,440	2,440	1,150	6,900	1,140	926	1,710	2,980	343	328
30	491	2,250	2,090	7,720	-------	8,980	1,080	683	1,280	2,140	226	301
31	504	-------	1,830	8,330	-------	17,400	-------	588	-------	1,230	487	-------

Note.—Discharge estimated for periods of ice effect, Jan. 15-17, Feb. 5-25, Nov. 29 to Dec. 8, 1929, Nov. 27-30, Dec. 18-30, 1930, Jan. 1-5, 16-19, 1931, Mar. 9-18, 1932, and for period recorder clock was stopped, Jan. 8 to Mar. 16, 1930.

Monthly discharge, in second-feet, of Youghiogheny River at Connellsville, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928–29					
October	380	93	261	0.198	0.23
November	2,550	180	913	.692	.77
December	9,510	760	2,180	1.65	1.90
January	6,710	760	2,470	1.87	2.16
February	16,800	850	2,240	1.70	1.77
March	9,800	1,510	4,730	3.58	4.13
April	13,500	1,400	6,120	4.64	5.18
May	6,710	1,860	3,740	2.83	3.26
June	4,560	645	1,600	1.21	1.35
July	1,620	196	613	.464	.53
August	1,620	350	665	.504	.58
September	1,300	177	536	.406	.45
The year	16,800	93	2,170	1.64	22.31
1929–30					
October	25,100	211	2,980	2.26	2.61
November	11,300	1,120	2,990	2.27	2.53
December	8,630	1,200	3,030	2.30	2.65
January	4,530	686	1,980	1.50	1.73
February	8,190	730	3,310	2.51	2.61
March	8,190	1,590	3,630	2.75	3.17
April	4,530	1,280	2,400	1.82	2.03
May	1,590	478	917	.695	.80
June	6,950	268	1,380	1.05	1.17
July	580	136	279	.211	.24
August	345	63	155	.117	.13
September	274	80	165	.125	.14
The year	25,100	63	1,920	1.45	19.81
1930–31					
October	246	65	139	.105	.12
November	129	39	84.5	.064	.07
December	1,110	75	296	.224	.26
January	4,530	160	1,170	.886	1.02
February	5,780	634	2,400	1.82	1.90
March	8,160	917	2,860	2.17	2.50
April	17,700	1,130	4,490	3.40	3.79
May	13,900	1,480	4,370	3.31	3.82
June	1,830	373	955	.723	.81
July	3,970	331	892	.676	.78
August	2,760	210	943	.714	.82
September	6,580	394	1,500	1.14	1.27
The year	17,700	39	1,670	1.27	17.16
1931–32					
October	2,440	491	903	.684	.79
November	2,250	333	602	.456	1.51
December	13,500	1,270	4,250	3.22	3.71
January	8,900	1,340	3,300	2.50	2.88
February	13,900	1,090	3,390	2.57	2.77
March	17,400	960	4,240	3.21	3.70
April	21,800	1,080	3,840	2.91	3.25
May	12,400	588	3,070	2.33	2.69
June	1,900	481	860	.652	.73
July	3,540	535	871	.660	.76
August	1,810	226	696	.527	.61
September	453	123	325	.246	.27
The year	21,800	123	2,200	1.67	22.67

YOUGHIOGHENY RIVER AT SUTERSVILLE

LOCATION.—Chain gage at highway bridge at Sutersville, Westmoreland County. Zero of gage is 733.14 feet above mean sea level.

DRAINAGE AREA.—1,680 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1929; June, 1931, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 20,500 second-feet Feb. 27 (gage height, 12.2 feet from graph based on gage readings); minimum, 144 second-feet Oct. 18 (gage height, 2.32 feet).

Maximum discharge during period ending Sept. 30, 1931, 7,990 second-feet Sept. 27 (gage height, 7.5 feet from graph based on gage readings); minimum, 282 second-feet Aug. 5, 9 (gage height, 2.58 feet).

Maximum discharge during year ending Sept. 30, 1932, 31,500 second-feet Apr. 1 (gage height, 15.3 feet from graph based on gage readings); minimum, 107 second-feet Sept. 21 (gage height, 2.30 feet).

1915-1929, 1931-32: Maximum discharge, about 88,200 second-feet Mar. 30, 1924 (gage height, 27.5 feet from graph based on gage readings); minimum gage height, 1.96 feet July 10, 1918 (discharge not determined).

REMARKS.—Records fair except those for periods of ice effect, which are poor. Diurnal regulation from operations at hydroelectric plants upstream. Records for Oct. 1, 1929, to June 24, 1931, are too poor for publication. Cost of all equipment, maintenance, and operation of station after June 30, 1932, paid by United States Engineer Office, Pittsburgh, Pa.

Daily discharge, in second-feet, 1928-29 and 1931-32.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	526	342	7,900	850	2,200	11,200	2,060	4,400	4,400	2,060	478	370
2	430	316	6,000	1,150	2,000	8,800	1,690	4,200	3,610	1,690	486	415
3	378	278	4,200	2,060	1,600	5,809	1,580	7,000	2,620	1,470	486	336
4	342	296	3,099	1,500	1,200	5,800	1,690	7,600	2,190	1,250	950	266
5	378	278	2,620	1,200	1,000	7,000	5,000	5,600	1,930	1,100	1,470	260
6	415	272	2,330	1,400	950	10,700	10,700	5,200	1,810	760	760	303
7	272	272	1,810	1,600	1,000	11,700	6,400	6,400	1,470	805	715	470
8	392	342	1,470	1,400	1,100	8,800	4,600	6,200	1,690	1,050	574	1,930
9	336	415	1,360	1,000	1,200	6,400	4,000	5,200	1,810	1,150	518	1,150
10	220	400	1,050	1,200	1,360	4,600	8,100	4,400	2,000	900	518	1,200
11	290	526	715	2,200	1,200	3,800	11,900	3,610	1,470	760	670	900
12	322	510	550	3,400	1,200	4,800	8,500	3,090	1,360	590	1,150	550
13	310	510	1,050	2,200	1,000	6,200	6,200	3,430	1,200	670	1,150	415
14	336	850	1,000	1,300	900	8,100	5,400	3,800	1,100	630	1,150	355
15	392	1,100	3,610	1,200	809	9,709	4,600	4,00	950	590	950	329
16	316	950	3,090	1,200	800	8,100	8,300	3,43	850	484	670	355
17	185	760	3,260	1,500	800	7,600	17,300	2,9	760	454	630	385
18	185	670	3,260	2,400	800	6,000	12,200	2,6	670	470	462	1,250
19	378	630	3,800	4,800	900	5,000	8,800	3,4	950	462	534	1,470
20	322	1,150	3,090	7,200	1,000	4,200	7,600	4,4	900	355	400	1,000
21	336	2,930	2,470	4,800	1,000	3,260	8,300	6,000	760	430	462	850
22	290	2,190	1,690	3,610	1,000	3,260	10,900	6,400	760	322	494	805
23	242	2,060	1,360	6,000	950	2,930	10,000	5,400	715	290	900	550
24	220	1,580	1,470	6,600	900	3,090	7,000	4,200	1,300	215	1,810	494
25	355	1,420	1,360	5,600	950	2,770	5,800	3,610	1,360	494	1,470	385
26	336	1,360	1,250	6,800	8,300	2,620	7,000	2,930	1,580	430	1,000	486
27	355	1,250	1,150	4,800	18,400	2,190	8,100	2,470	1,470	630	630	430
28	362	1,150	1,200	3,800	14,900	2,330	7,600	2,330	1,580	558	630	454
29	322	1,200	1,360	3,090	-------	1,930	6,400	7,400	5,000	378	486	370
30	370	1,360	1,250	1,810	-------	1,690	5,400	7,200	3,610	266	446	526
31	454	-------	900	1,690	-------	1,690	-------	5,000	-------	355	462	-------

Daily discharge, in second-feet, of Youghiogheny River at Sutersville, 1928-29 and 1931-32—Continued.

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1931					1931				
1		612	394	1,630	16		656	426	473
2		513	371	1,570	17		612	371	656
3		746	473	3,080	18		932	441	1,080
4		1,180	394	2,590	19		932	836	1,760
5		883	508	2,010	20		1,080	1,130	1,340
6		883	529	1,750	21		836	1,460	1,130
7		656	513	1,400	22		932	2,210	980
8		656	418	980	23		789	2,440	1,460
9		699	311	836	24		1,030	1,880	1,630
10		840	869	789	25	1,080	1,080	1,180	1,750
11		4,010	2,240	744	26	836	836	1,130	2,700
12		2,380	1,240	744	27	699	612	1,630	6,920
13		1,510	789	579	28	789	465	2,290	4,900
14		932	570	505	29	883	356	3,790	3,080
15		883	433	473	30	656	513	4,210	2,150
					31		441	2,240	

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	1,630	612	4,580	2,750	6,080	1,400	27,200	1,340	699	1,240	1,130	570
2	1,340	744	3,610	3,250	4,900	1,340	15,300	1,400	836	980	789	529
3	1,130	656	2,290	4,710	4,520	1,290	11,300	1,750	789	883	980	521
4	1,030	604	1,880	3,970	5,260	1,340	8,430	1,630	744	932	1,630	371
5	980	562	1,880	3,250	16,000	1,460	6,280	1,460	836	789	1,630	364
6	789	529	2,010	4,920	9,170	2,440	5,090	1,460	612	1,180	1,180	402
7	789	513	1,880	9,580	6,080	2,290	4,330	1,460	562	1,400	980	190
8	1,010	489	1,570	7,770	5,090	1,630	3,790	1,570	744	1,880	744	156
9	1,750	505	1,380	5,680	6,080	1,500	3,430	1,510	744	2,010	699	465
10	1,400	449	3,440	4,710	4,710	1,350	2,910	5,750	744	2,010	883	457
11	1,080	449	5,940	3,790	4,330	1,300	2,750	7,770	612	1,340	836	457
12	932	473	12,600	3,250	3,970	1,250	2,910	7,770	656	932	883	371
13	744	480	13,100	2,910	2,750	1,200	3,610	12,200	699	980	744	341
14	744	579	14,700	2,750	2,500	1,200	3,430	10,500	836	883	579	170
15	699	883	11,800	2,440	2,290	1,180	3,790	7,550	1,400	883	473	505
16	836	1,130	7,770	2,290	2,150	1,200	4,150	5,680	1,630	932	418	465
17	1,370	789	5,480	2,290	2,440	2,000	3,610	4,520	1,880	1,030	410	473
18	2,750	789	4,330	2,150	3,080	10,900	3,080	3,790	1,630	789	842	505
19	2,290	789	3,430	2,150	2,910	7,780	2,910	3,250	980	537	1,570	341
20	1,570	883	3,080	1,880	2,440	7,120	2,590	2,750	932	744	1,340	371
21	1,290	656	2,910	1,750	2,010	7,330	2,290	2,440	699	656	980	151
22	1,080	699	2,750	1,630	1,880	9,350	2,150	1,880	1,340	2,620	699	465
23	980	744	3,430	1,880	1,750	11,200	1,880	1,630	1,130	2,620	481	449
24	883	537	3,610	4,260	1,750	7,550	1,750	1,340	932	1,510	546	449
25	699	612	5,780	5,280	1,510	5,680	1,570	1,510	789	980	604	387
26	699	554	5,280	4,150	1,570	4,900	1,460	1,400	612	699	579	387
27	656	570	3,970	3,610	1,570	5,090	1,750	1,290	656	836	562	371
28	612	562	3,430	3,610	1,510	9,580	1,570	1,180	556	1,380	554	238
29	656	656	3,080	3,080	1,400	8,210	1,400	1,030	1,360	2,970	418	356
30	604	944	2,750	8,990	-------	9,720	1,290	883	1,510	3,080	394	379
31	612	-------	2,290	10,200	-------	16,600	-------	744	-------	1,630	282	-------

Note.—Discharge estimated because of ice Jan. 4-19, Feb. 1-25, 1929, Mar. 9-17, 1932, and because of missing gage-height record Feb. 14, 1932.

Monthly discharge, in second-feet, of Youghiogheny River at Sutersville, 1928-29 and 1931-32.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	526	185	334	0.199	0.23
November	2,930	272	912	.543	.61
December	7,900	715	2,290	1.36	1.57
January	7,200	850	2,880	1.71	1.97
February	18,400	800	2,480	1.48	1.54
March	11,700	1,690	5,550	3.30	3.80
April	17,300	1,580	7,100	4.23	4.72
May	7,600	2,330	4,640	2.76	3.18
June	5,000	670	1,730	1.03	1.15
July	2,060	215	712	.424	.49
August	1,810	400	758	.451	.52
September	1,930	260	635	.378	.42
The year	18,400	185	2,500	1.49	20.20
1931					
June, 26-30	1,080	656	824	.490	.22
July	4,010	356	951	.566	.65
August	4,210	311	1,220	.726	.84
September	6,920	473	1,720	1.02	1.14
1931-32					
October	2,750	604	1,080	.643	.74
November	1,130	449	648	.386	.43
December	14,700	1,380	4,710	2.80	3.23
January	10,200	1,630	4,030	2.40	2.77
February	16,000	1,400	3,850	2.29	2.47
March	16,600	1,180	4,720	2.81	3.24
April	27,200	1,290	4,600	2.74	3.06
May	12,200	744	3,240	1.93	2.22
June	1,880	556	938	.558	.62
July	3,080	537	1,330	.792	.91
August	1,630	282	801	.477	.55
September	570	151	389	2.32	.26
The year	27,200	151	2,530	1.51	20.50

OHIO BASIN—STATION NO. 28

CASSELMAN RIVER AT MARKLETON

LOCATION.—Chain gage at highway bridge at Markleton, Somerset County.

DRAINAGE AREA.—365 square miles.

RECORDS AVAILABLE.—August, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 5,900 second-feet Feb. 26, May 29 (gage height, 7.0 feet from graph based on gage readings); minimum, 23 second-feet Sept. 7 (gage height, 1.67 feet).

Maximum discharge during year ending Sept. 30, 1930, about 7,230 second-feet Oct. 3 (gage height, 7.6 feet from graph based on gage readings); minimum, 11 second-feet Aug. 13 (gage height, 1.52 feet).

Maximum discharge during year ending Sept. 30, 1931, about 6,770 second feet Apr. 4 (gage height, 7.4 feet from graph based on gage readings); minimum, 12 second-feet at times in October (gage height, 1.53 feet).

Maximum discharge during year ending Sept. 30, 1932, about 6,330 second-feet Apr. 1 (gage height, 7.2 feet from graph based on gage readings); minimum, 15 second-feet Sept. 25 (gage height, 1.50 feet).

1913-1932: Maximum gage height, 12.17 feet Mar. 29, 1924 (discharge not determined); minimum discharge, that of Aug. 13, 1930.

REMARKS.—Records fair except those above 4,000 second-feet and those for periods of ice effect, which are poor. Slight regulation at low stages from power operations upstream.

Daily discharge, in second-feet, of Casselman River at Markleton, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	87	71	2,310	160	190	2,180	442	915	1,050	270	45	36
2	80	66	1,050	170	190	1,680	336	870	780	252	43	33
3	69	64	825	170	170	1,150	312	2,050	612	202	43	28
4	64	73	612	160	160	1,680	359	1,350	472	165	506	28
5	63	87	539	150	160	1,570	2,720	1,100	412	150	173	29
6	60	103	442	140	160	2,180	2,580	960	359	147	97	26
7	57	83	312	140	160	2,720	1,460	1,570	312	359	76	24
8	58	80	291	140	170	1,570	1,050	1,250	576	188	66	103
9	56	101	234	160	190	1,250	1,050	960	780	160	58	80
10	54	111	163	312	190	780	3,380	825	412	138	54	107
11	45	107	173	736	200	870	2,720	692	336	133	89	76
12	47	114	218	386	190	1,570	1,920	612	270	124	188	51
13	44	291	234	252	160	2,050	1,460	915	252	114	129	48
14	41	291	270	202	140	3,040	1,150	780	218	105	83	43
15	40	218	1,050	170	120	3,200	870	780	202	99	66	48
16	43	188	736	170	110	2,880	3,570	612	173	91	63	45
17	45	163	612	190	120	2,050	3,990	539	165	83	57	188
18	51	142	870	240	140	1,460	2,880	442	168	80	43	129
19	57	188	652	1,680	150	1,150	2,310	652	152	76	71	95
20	60	652	539	1,000	160	1,050	2,050	825	140	68	71	69
21	54	412	336	639	150	825	2,050	870	129	63	69	57
22	48	336	234	442	150	780	2,720	960	136	57	54	45
23	54	312	270	420	140	960	2,050	736	131	56	73	43
24	74	312	270	440	140	825	1,460	612	359	56	116	38
25	87	336	252	480	140	692	1,350	539	270	58	114	37
26	80	270	220	360	170	612	2,310	442	336	152	73	37
27	78	270	200	300	5,200	576	1,680	412	202	87	57	38
28	93	312	190	260	3,990	472	1,250	539	442	69	44	32
29	111	312	170	220	-------	412	1,570	4,300	1,100	62	40	33
30	103	960	160	200	-------	442	1,100	1,920	412	57	37	35
31	80	-------	160	200	-------	539	-------	1,350	-------	51	37	-------
1929-30												
1	40	373	300	743	150	1,160	404	502	106	126	18	26
2	2,050	338	300	1,160	180	1,160	669	404	97	131	17	22
3	5,110	1,270	300	1,560	240	942	706	342	93	131	15	22
4	2,030	1,460	300	1,160	460	860	566	295	84	121	14	18
5	1,250	900	320	820	960	743	472	269	80	100	13	19
6	743	669	400	820	820	942	444	278	74	93	14	18
7	599	566	620	820	599	1,030	900	291	76	102	14	16
8	444	502	1,360	743	566	1,350	1,160	246	80	97	14	48
9	357	444	1,030	782	415	1,160	983	226	80	88	15	88
10	300	383	782	743	520	1,160	1,250	209	1,390	72	14	48
11	257	383	706	599	669	1,350	1,070	195	1,520	66	14	31
12	230	373	634	599	634	1,450	860	183	669	61	12	24
13	216	333	1,300	820	1,160	1,250	706	176	404	66	12	22
14	198	352	2,430	743	1,250	1,670	634	189	313	84	24	26
15	189	782	1,790	706	860	1,160	566	209	238	116	53	22
16	183	743	1,350	599	533	1,070	502	216	242	80	54	26
17	287	794	1,120	472	634	942	533	186	820	65	68	54
18	269	3,260	1,030	360	634	1,030	502	183	669	56	109	53
19	202	2,240	1,160	180	743	2,160	472	269	383	48	88	44
20	176	1,450	1,120	160	942	1,350	444	309	269	39	51	31
21	164	1,160	634	160	1,080	1,070	533	238	220	36	39	25
22	260	900	500	160	860	860	1,160	192	195	34	31	21
23	1,890	782	460	150	820	706	782	164	173	42	29	19
24	983	706	440	140	1,030	706	669	158	189	42	34	18
25	669	634	440	135	1,790	634	634	158	502	34	35	18
26	599	533	460	130	1,670	634	566	147	287	29	31	15
27	415	599	510	135	1,790	533	472	131	253	30	29	21
28	388	820	800	150	1,350	472	444	131	234	31	54	15
29	342	634	980	140	-------	533	415	131	170	26	34	18
30	328	309	782	140	-------	533	373	124	142	22	34	17
31	399	-------	669	140	-------	472	-------	116	-------	20	29	-------

Daily discharge, in second-feet, of Casselman River at Markleton, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	15	20	35	60	338	706	1,250	599	502	82	93	261
2	18	22	25	50	318	1,250	1,560	533	415	115	70	230
3	14	23	30	60	226	782	1,630	706	342	266	72	367
4	14	20	35	100	295	669	5,740	533	295	714	74	295
5	12	23	35	180	167	502	2,970	472	295	373	93	246
6	13	28	130	880	173	444	2,030	404	404	198	82	202
7	12	23	480	860	192	415	1,670	414	291	158	65	176
8	13	39	520	700	282	415	1,350	1,500	295	126	51	147
9	13	32	357	540	844	378	2,030	1,120	287	102	76	131
10	13	24	186	460	1,160	300	1,560	942	238	888	1,120	116
11	13	22	153	420	669	278	1,250	782	202	1,050	430	106
12	13	22	226	400	599	269	983	748	170	362	223	93
13	13	23	234	360	566	246	820	2,840	153	238	158	84
14	13	22	128	270	1,600	404	743	3,790	158	186	124	80
15	13	23	109	190	942	834	634	2,160	136	158	102	80
16	12	23	82	160	782	706	566	1,450	142	150	80	80
17	13	25	75	160	743	634	472	1,120	142	318	70	76
18	15	38	65	160	942	533	472	900	121	743	66	533
19	12	40	55	200	1,120	706	404	743	100	304	203	226
20	14	35	53	540	942	669	362	734	93	189	415	128
21	14	30	50	580	782	669	318	1,380	80	153	732	216
22	14	30	48	460	669	743	333	1,100	88	176	820	158
23	14	28	46	380	566	669	860	2,260	131	183	472	162
24	18	23	43	390	533	669	634	1,910	134	566	328	502
25	22	22	40	430	444	1,160	1,120	1,450	147	234	246	280
26	22	18	47	1,180	399	1,350	1,250	1,160	95	147	347	1,590
27	22	14	80	1,450	328	1,160	1,560	900	230	116	373	990
28	22	13	200	1,160	323	1,220	1,160	706	189	102	472	634
29	23	13	170	743	-------	2,990	900	599	121	88	669	444
30	24	20	130	533	-------	1,790	706	502	86	84	444	323
31	22	-------	90	502	-------	1,250	-------	599	-------	111	333	-------
1931-32												
1	250	97	743	383	840	250	5,100	363	177	89	101	33
2	216	100	344	706	820	230	3,190	472	163	87	87	48
3	189	97	261	782	900	216	3,050	330	169	95	91	120
4	164	84	242	566	4,880	256	1,910	295	152	114	158	57
5	147	82	323	533	3,080	582	1,450	282	133	119	135	39
6	136	78	304	1,500	1,790	472	1,160	282	123	177	93	31
7	124	78	269	1,910	1,250	291	942	259	121	163	81	41
8	120	72	145	1,350	1,560	260	820	237	114	237	137	31
9	226	74	262	1,070	1,250	240	743	1,460	105	217	128	22
10	147	68	775	860	1,070	225	706	1,450	97	163	87	23
11	121	74	1,580	706	983	215	634	2,030	93	119	76	24
12	111	76	3,360	599	860	210	743	2,630	99	89	74	21
13	102	102	3,360	599	669	205	706	3,380	142	70	67	18
14	102	134	3,030	533	533	205	669	2,870	217	65	53	18
15	153	142	2,030	472	502	200	1,030	1,910	177	55	43	21
16	164	121	1,250	533	472	210	820	1,350	163	114	41	22
17	489	102	942	444	599	760	669	1,030	270	133	41	23
18	444	102	782	444	669	2,110	599	820	142	89	147	21
19	273	102	669	383	472	1,350	566	669	128	67	261	21
20	209	100	634	347	444	1,790	472	566	152	60	152	18
21	176	88	472	323	367	1,560	415	502	186	57	85	18
22	153	82	472	318	383	2,700	394	415	169	144	63	21
23	136	80	634	429	342	2,290	354	373	169	231	52	21
24	124	80	660	1,250	212	1,790	325	335	110	120	49	17
25	121	84	1,120	860	333	1,450	330	299	93	79	39	16
26	109	76	743	706	523	1,350	358	274	81	53	34	18
27	97	86	566	743	295	1,450	325	248	85	116	40	17
28	102	90	533	669	295	1,560	321	244	103	298	31	36
29	104	116	502	599	287	1,560	274	224	114	349	31	36
30	100	528	472	1,960	-------	1,910	256	204	110	241	34	41
31	100	-------	404	1,360	-------	4,740	-------	186	-------	137	36	-------

Note.—Discharge estimated for periods of ice effect, Dec. 26-31, 1928, Jan. 1-9, 15-18, Jan. 23 to Feb. 26, Dec. 1-8, 22-29, 1929, Jan. 18 to Feb. 5, Nov. 26 to Dec. 8, Dec. 17-31, 1930, Jan. 1-26, 1931, Mar. 8-17, 1932.

Monthly discharge, in second-feet, of Casselman River at Markleton, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	111	40	64.0	0.175	0.20
November	960	64	234	.641	.72
December	2,310	160	471	1.29	1.49
January	1,680	140	342	.937	1.08
February	5,200	110	475	1.30	1.35
March	3,200	412	1,390	3.81	4.39
April	3,990	312	1,800	4.93	5.50
May	4,300	412	1,010	2.77	3.19
June	1,100	129	379	1.04	1.16
July	359	51	122	.334	.39
August	506	37	88.2	.242	.28
September	188	24	56.0	.153	.17
The year	5,200	24	536	1.47	19.92
1929-30					
October	5,110	40	696	1.91	2.20
November	3,260	309	8,230	2.25	2.51
December	2,430	300	807	2.21	2.55
January	1,560	130	522	1.43	1.65
February	1,790	150	807	2.21	2.30
March	2,160	472	1,000	2.74	3.16
April	1,250	373	663	1.82	2.03
May	502	116	222	.608	.70
June	1,520	74	335	.918	1.02
July	131	20	67.4	.185	.21
August	109	12	32.6	.089	.10
September	88	15	28.2	.077	.09
The year	5,110	12	4.98	1.36	18.52
1930-31					
October	24	12	15.5	.042	.05
November	40	13	24.6	.067	.07
December	520	25	128	.351	.40
January	1,450	50	470	1.29	1.49
February	1,600	167	605	1.66	1.73
March	2,990	246	800	2.19	2.52
April	5,740	318	1,240	3.40	3.79
May	3,790	404	1,130	3.10	3.57
June	502	80	203	.556	.62
July	1,050	82	280	.767	.88
August	1,120	51	287	.786	.91
September	1,590	76	299	.819	.91
The year	5,740	12	456	1.25	16.94
1931-32					
October	489	97	168	.460	.53
November	528	68	106	.290	.32
December	3,360	145	899	2.46	2.84
January	1,930	318	771	2.11	2.43
February	4,880	212	913	2.50	2.70
March	4,740	200	1,050	2.88	3.32
April	5,100	256	978	2.68	2.99
May	3,380	186	838	2.30	2.65
June	270	81	139	.381	.43
July	349	53	134	.367	.42
August	261	31	82.2	.225	.26
September	120	16	29.8	.082	.09
The year	5,100	16	509	1.39	18.98

LAUREL HILL CREEK AT URSINA

LOCATION.—Chain gage at highway bridge at Ursina, Somerset County.

DRAINARE AREA.—122 square miles.

RECORDS AVAILABLE.—August, 1913, to September, 1932.

EXTREMES.—Maximum discharge during year ending September 30, 1929, 2,700 second-feet June 28 (gage height, 5.15 feet from graph based on gage readings); minimum, 5.3 second-feet Oct. 13 (gage height, 1.60 feet).

Maximum discharge during year ending Sept. 30, 1930, about 5,810 second-feet Oct. 3 (gage height, 7.1 feet from graph based on gage readings); minimum, 5.6 second-feet July 20 (gage height, 1.62 feet).

Maximum discharge during year ending Sept. 30, 1931, 3,590 second-feet Apr. 4 (gage height, 5.76 feet); minimum, 3.1 second-feet Oct. 19 (gage height, 1.53 feet).

Maximum discharge during year ending Sept. 30, 1932, 2,990 second-feet Mar. 31 (gage height, 5.45 feet from graph based on gage readings); minimum, 2.2 second-feet Sept. 26 (gage height, 1.62 feet).

1913-1932: Maximum gage height, 9.30 feet Mar. 29, 1924 (discharge not determined); minimum discharge, 1 second-foot Aug. 22, 1917 (gage height, 1.20 feet).

REMARKS.—Records fair except those for periods of ice effect, which are poor. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	26	29	1,520	85	120	1,950	181	353	379	230	17	22
2	26	22	800	100	100	835	140	366	268	230	12	23
3	23	23	450	85	100	1,160	112	870	200	156	11	15
4	26	26	297	75	90	730	196	630	168	80	119	17
5	23	43	241	70	85	870	1,210	430	136	109	43	22
6	26	36	196	70	75	910	1,210	430	119	88	24	19
7	18	28	160	70	70	1,120	663	696	109	191	20	15
8	11	54	160	85	88	663	437	562	177	144	16	106
9	23	77	129	110	148	509	450	430	132	106	17	59
10	19	54	100	200	148	328	1,120	347	86	77	17	32
11	19	68	90	280	130	304	990	268	63	75	99	27
12	13	63	85	220	100	663	730	241	63	41	268	23
13	9.5	230	85	150	90	870	516	470	57	59	86	23
14	15	191	100	110	75	1,310	411	379	52	52	48	18
15	18	99	562	85	70	1,520	529	353	46	52	41	24
16	18	63	424	85	70	1,310	1,260	322	37	36	36	26
17	18	70	268	100	70	1,210	1,520	262	32	36	37	156
18	22	77	503	800	75	765	950	214	61	29	24	116
19	17	99	372	1,420	90	562	730	328	41	27	57	50
20	14	119	297	696	100	418	765	366	27	29	39	32
21	14	136	210	463	100	366	1,120	562	37	22	31	31
22	22	224	160	398	85	273	1,310	596	61	22	23	32
23	24	186	140	340	75	372	950	404	63	23	70	24
24	28	156	130	440	70	437	630	340	246	19	172	22
25	34	152	130	630	75	268	630	279	80	20	70	23
26	28	168	132	562	120	219	1,310	214	181	88	41	12
27	28	172	172	379	2,190	230	990	177	94	48	45	29
28	39	164	102	280	1,620	172	663	273	800	23	32	15
29	63	160	106	200	-------	168	663	1,420	1,030	22	28	18
30	36	529	75	170	-------	177	489	950	392	17	26	17
31	23	-------	70	130	-------	241	-------	562	-------	16	23	-------

Daily discharge, in second-feet, of Laurel Hill Creek at Ursina, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	24	92	130	246	170	493	164	152	57	66	11	10
2	1,730	78	120	351	190	493	558	118	44	66	10	8.9
3	4,020	204	115	558	230	385	425	108	42	55	8.9	11
4	1,690	256	110	414	300	329	324	92	31	49	9.4	8.9
5	686	172	120	329	700	308	251	90	19	44	10	7.2
6	292	122	160	346	530	368	232	101	34	34	13	6.7
7	276	164	300	266	460	481	308	92	35	53	12	7.8
8	208	122	520	222	400	493	340	76	29	40	11	42
9	152	108	400	324	350	487	329	66	31	34	10	23
10	132	92	282	334	340	462	468	64	770	37	14	13
11	112	92	237	266	340	493	356	60	1,110	31	7.2	9.4
12	84	87	190	292	380	558	297	57	396	26	7.8	8.4
13	84	31	577	431	740	402	261	60	227	32	8.9	8.9
14	66	90	970	414	900	558	237	46	156	35	14	8.9
15	60	334	697	379	460	390	199	68	118	47	26	8.4
16	78	351	526	271	380	340	172	76	152	27	16	13
17	186	452	373	246	340	329	186	57	266	19	32	15
18	84	2,230	373	227	330	412	160	62	558	22	22	15
19	24	1,440	481	204	330	1,140	156	105	282	15	18	14
20	57	662	425	190	443	697	148	118	204	8.9	18	8.9
21	62	431	356	180	526	481	164	87	156	15	8.9	7.8
22	68	276	297	180	414	356	493	62	132	19	9.4	8.4
23	190	237	261	170	373	266	351	76	101	24	8.9	6.2
24	122	204	208	170	419	246	297	70	125	19	14	6.2
25	122	190	208	170	697	212	256	57	287	12	16	7.8
26	115	164	186	170	1,060	194	232	62	199	14	13	6.2
27	84	156	156	180	1,030	164	181	47	140	22	12	7.8
28	95	246	276	190	697	148	172	62	108	24	9.4	7.8
29	78	194	308	180	-------	164	156	57	90	20	12	7.2
30	87	152	237	170	-------	190	144	55	64	9.4	13	7.8
31	87	-------	208	165	-------	136	-------	51	-------	8.9	14	-------
1930-31												
1	5.0	8.4	15	35	148	261	456	229	124	20	29	128
2	7.2	10	11	30	164	414	481	189	101	22	19	120
3	5.0	9.4	11	30	125	292	492	219	83	60	18	437
4	5.0	8.9	15	40	101	227	2,930	152	72	48	15	255
5	6.2	8.9	20	120	78	190	1,440	136	98	40	15	189
6	6.2	11	35	250	105	156	850	120	101	34	14	124
7	5.6	6.7	160	200	84	136	662	146	85	32	8.0	101
8	4.3	6.7	136	150	122	140	526	526	104	20	7.2	83
9	4.3	5.0	76	110	320	125	481	342	101	19	14	67
10	5.6	6.7	49	90	346	112	456	320	70	290	366	50
11	6.2	8.4	51	85	232	115	462	245	60	277	202	54
12	5.6	8.4	64	80	242	95	354	229	54	156	80	39
13	4.1	8.4	84	76	233	129	282	706	50	46	44	32
14	4.1	7.8	42	72	716	122	240	956	44	37	34	34
15	6.2	8.4	35	70	468	356	194	626	44	32	29	39
16	4.5	7.8	28	70	340	261	152	413	50	36	21	40
17	4.3	14	23	70	329	227	110	342	39	48	21	48
18	4.3	15	21	80	390	204	120	260	36	52	22	198
19	3.5	9.4	20	100	526	271	110	229	34	62	31	67
20	4 1	8.9	19	150	468	227	94	180	26	29	179	42
21	5.0	11	18	110	340	246	98	314	28	37	194	128
22	4.5	8.9	17	100	297	276	88	258	36	39	314	161
23	7.2	10	17	100	242	246	136	1,200	58	50	144	72
24	7.8	8.4	16	150	204	266	144	1,290	72	194	91	78
25	8.9	8.4	16	250	172	402	377	811	36	62	80	68
26	11	8.4	20	400	160	526	737	474	36	37	88	560
27	7.8	8.0	40	630	140	468	916	365	50	31	101	199
28	9.4	7.5	90	592	129	493	526	271	52	24	209	260
29	9.4	7.5	70	390	-------	1,010	365	209	31	16	493	152
30	11	11	50	232	-------	662	282	160	22	21	292	114
31	7.2	-------	40	217	-------	456	-------	170	-------	26	199	-------

Daily discharge, in second-feet, of Laurel Hill Creek at Ursina, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	98	60	626	175	481	78	2,620	124	37	26	104	20
2	78	52	303	282	389	62	1,390	124	37	36	83	84
3	67	50	214	354	371	54	1,240	101	39	39	114	21
4	58	40	229	260	935	80	811	94	32	31	267	13
5	52	40	240	250	930	107	592	88	34	54	94	14
6	48	37	199	916	592	107	431	88	31	94	72	13
7	42	36	175	1,190	462	117	331	78	29	80	65	11
8	37	37	160	772	443	100	265	78	24	98	52	11
9	165	37	370	526	462	90	240	230	22	98	50	7.2
10	107	34	626	383	377	85	204	649	28	60	39	8.0
11	67	28	836	282	325	80	189	890	19	44	42	8.0
12	56	36	1,260	234	282	75	342	995	29	36	36	5.5
13	56	42	1,940	204	229	72	309	850	56	34	29	5.5
14	52	91	2,060	175	175	70	250	811	128	36	24	6.4
15	85	78	1,500	156	170	70	493	772	58	31	22	6.4
16	121	62	811	139	136	90	431	437	140	151	22	6.4
17	550	52	526	156	240	350	354	314	140	46	19	5.5
18	437	56	383	175	255	981	303	255	80	32	188	4.9
19	255	56	298	140	170	626	265	194	58	22	121	5.5
20	180	52	245	132	160	697	260	180	62	21	52	4.9
21	148	50	189	128	152	626	189	160	44	28	34	4.3
22	120	54	255	124	128	1,320	148	117	52	577	29	4.6
23	101	50	493	276	124	1,190	132	104	39	230	25	3.4
24	88	40	537	592	124	734	101	85	28	101	20	3.4
25	85	50	850	413	132	592	120	83	26	72	20	3.7
26	75	46	578	314	101	592	114	78	22	56	19	2.4
27	62	48	401	348	88	930	107	62	37	87	15	2.5
28	62	52	325	282	101	930	98	65	54	304	16	5.2
29	60	65	287	235	83	772	83	54	36	922	15	11
30	54	603	229	1,280	-------	1,010	83	54	32	289	19	6.4
31	58	-------	189	772	-------	2,410	-------	39	-------	152	16	-------

Note.—Discharge estimated for periods of ice effect, Dec. 10-14, 22-25, 31, 1928, Jan. 1-17, 23, 24, Jan. 28 to Feb. 7, Feb. 11-26, Dec. 1-9, 1929, Jan. 20 to Feb. 19, Nov. 27 to Dec. 7, Dec. 15-31, 1930, Jan. 1-27, Feb. 27, 1931, Mar. 8-17, 1932.

Monthly discharge, in second-feet, of Laurel Hill Creek at Ursina, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	63	9.5	23.3	0.191	0.22
November	529	22	117	.959	1.07
December	1,520	70	267	2.19	2.52
January	1,420	70	287	2.35	2.71
February	2,190	70	222	1.82	1.90
March	1,950	168	675	5.53	6.38
April	1,520	112	762	6.25	6.97
May	1,420	177	455	3.73	4.30
June	1,030	27	175	1.43	1.60
July	230	16	69.9	.573	.66
August	268	11	51.4	.421	.49
September	156	12	34.9	.286	.32
The year	2,190	9.5	262	2.15	29.14
1929-30					
October	4,020	24	362	2.97	3.42
November	2,230	78	316	2.59	2.89
December	970	110	316	2.59	2.99
January	558	165	266	2.18	2.51
February	1,060	170	483	3.96	4.12
March	1,140	136	393	3.22	3.71
April	558	144	267	2.19	2.44
May	152	46	75.9	.622	.72
June	1,110	19	199	1.63	1.82
July	66	8.9	29.9	.245	.28
August	32	7.2	13.2	.108	.12
September	42	6.2	10.7	.088	.10
The year	4,020	6.2	226	1.85	25.12
1930-31					
October	11	3.5	6.15	.050	.06
November	15	5.0	8.91	.073	.08
December	160	11	42.2	.346	.40
January	630	30	164	1.34	1.54
February	716	78	258	2.11	2.20
March	1,010	95	294	2.41	2.78
April	2,930	88	485	3.98	4.44
May	1,290	120	390	3.20	3.69
June	124	22	59.9	.491	.55
July	290	16	61.2	.502	.58
August	493	7.2	109	.893	1.03
September	560	32	131	1.07	1.19
The year	2,930	3.5	167	1.37	18.54
1931-32					
October	555	37	114	.934	1.08
November	603	28	67.8	.556	.62
December	2,060	160	559	4.58	5.28
January	1,280	124	378	3.10	3.57
February	935	83	297	2.43	2.62
March	2,410	54	487	3.99	4.60
April	2,620	83	416	3.41	3.80
May	995	39	266	2.18	2.51
June	140	19	48.4	.397	.44
July	922	21	125	1.02	1.18
August	267	15	55.6	.456	.53
September	84	2.4	8.60	.070	.08
The year	2,620	2.4	236	1.93	26.31

TURTLE CREEK AT TRAFFORD*

LOCATION.—Chain gage at highway bridge at Blackburn railroad station half a mile northeast of Trafford, Westmoreland County.

DRAINAGE AREA.—55 square miles.

RECORDS AVAILABLE.—July, 1914, to September, 1932.

EXTREMES.—Maximum gage height during year ending Sept. 30, 1929, 6.8 feet from hydrograph Feb. 26 (discharge not determined); minimum discharge, 2.2 second-feet Sept. 3 (gage height, 0.42 foot).

Maximum gage height during year ending Sept. 30, 1930, 5.0 feet from hydrograph Feb. 26 (discharge not determined); minimum discharge, 0.4 second-foot at times in August (gage height, 0.31 foot).

Maximum gage height during year ending Sept. 30, 1931, 5.3 feet from hydrograph Apr. 3 (discharge not determined); minimum discharge, 0.3 second-foot Oct. 13-23 (gage height, 0.30 foot).

Maximum discharge during year ending Sept. 30, 1932, about 1,090 second-feet Dec. 24 (gage height, 3.8 feet from graph based on gage readings); minimum, 0.3 second-foot at times during August and September.

1914-1932: Maximum gage height, that of Feb. 26, 1929; minimum discharge, 0.1 second-foot Oct. 6, 7, 1922 (gage height, 0.10 foot).

REMARKS.—Records fair except those for high stages and for estimated periods, which are poor. Daily discharge not computed but monthly quantities were estimated for period of no gage-height record, October and November, 1928.

Daily discharge, in second-feet, 1928-1932.

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29										
1	61	19	30	207	60	103	79	13	3.2	2.7
2	39	24	34	346	42	147	65	12	3.0	2.5
3	39	18	22	237	42	467	53	7.4	3.4	2.4
4	34	20	20	159	110	258	45	6.5	4.0	2.5
5	35	14	20	417	323	182	39	62	3.2	2.6
6	33	24	20	658	279	229	34	15	2.8	2.6
7	26	35	24	417	147	301	27	10	2.9	2.6
8	23	28	30	185	108	199	45	20	3.0	3.0
9	21	34	30	133	115	132	29	48	3.2	3.2
10	18	70	26	74	417	108	22	125	2.9	4.0
11	18	51	24	77	271	84	16	31	2.9	2.7
12	16	25	20	81	346	74	13	19	5.9	2.3
13	19	26	20	106	323	86	14	14	3.4	2.8
14	27	24	20	185	275	203	14	12	5.9	3.0
15	110	34	20	245	442	185	12	9.0	3.8	3.8
16	80	31	24	222	873	125	12	6.8	3.0	3.4
17	56	99	30	159	778	88	12	6.5	2.8	6.8
18	74	279	24	110	323	79	12	6.8	2.9	4.6
19	57	417	18	86	84	140	12	6.8	2.8	2.9
20	46	222	14	77	165	369	12	4.6	2.8	2.8
21	22	67	10	70	442	658	10	4.0	2.5	2.6
22	62	34	9.0	67	393	369	9.0	3.6	2.5	2.4
23	46	301	10	106	250	226	12	3.6	24	2.4
24	30	135	16	101	172	147	14	4.0	22	2.7
25	38	601	573	120	172	108	11	15	5.6	2.6
26	36	237	2,030	110	301	83	11	10	3.6	2.6
27	31	125	417	88	218	67	7.4	5.3	3.6	2.4
28	30	77	279	77	159	601	24	5.9	2.8	2.6
29	27	56	-------	68	156	629	50	3.8	3.2	2.8
30	24	40	-------	106	128	258	77	4.0	2.9	2.8
31	14	36	-------	92	-------	122	-------	3.4	3.2	-------

*Formerly published as Turtle Creek near Trafford.

Daily discharge, in second-feet, of Turtle Creek at Trafford, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	3.2	20	67	216	75	249	71	37	13	11	0.8	1.3
2	227	35	62	49	80	177	145	32	11	9.6	.8	1.3
3	374	44	60	37	90	103	111	29	11	7.6	.6	1.3
4	145	69	57	42	120	169	86	26	10	5.0	.8	1.3
5	86	62	55	122	200	277	77	29	10	3.4	.6	1.3
6	61	45	58	105	277	359	86	51	11	2.9	.6	1.3
7	31	31	64	205	246	262	84	35	18	11	.4	1.3
8	23	27	63	156	210	128	77	29	13	8.6	.5	1.3
9	19	22	58	135	148	125	64	23	14	7.6	.5	1.3
10	16	21	55	96	118	140	56	19	418	6.0	.5	1.3
11	14	26	55	88	98	216	51	16	352	6.0	.5	1.3
12	14	20	60	111	103	234	50	14	92	4.6	1.0	1.3
13	14	17	452	288	100	213	77	29	52	4.3	1.4	1.3
14	14	48	460	277	90	169	169	29	38	4.3	1.1	1.3
15	13	262	199	208	82	140	153	79	31	4.3	1.0	1.3
16	12	156	94	161	78	118	123	166	48	4.3	1.0	1.4
17	12	216	92	143	76	109	107	84	69	4.3	1.2	1.4
18	10	495	188	130	73	151	98	96	51	4.0	1.0	1.3
19	11	293	213	120	64	130	98	116	42	3.4	.8	1.3
20	9.1	185	94	110	61	138	94	88	27	3.4	1.0	1.3
21	11	100	88	105	57	116	90	62	21	2.9	1.0	1.3
22	34	84	82	98	52	100	96	51	13	3.4	.7	1.3
23	32	77	78	91	48	113	86	40	5.4	2.9	1.2	1.3
24	39	71	74	87	61	84	82	29	13	2.5	1.3	1.2
25	22	64	73	84	1,080	98	73	25	16	2.1	1.3	1.1
26	16	59	72	82	1,270	111	64	22	14	1.6	1.3	1.2
27	15	69	71	80	723	92	64	20	14	1.1	1.6	.8
28	14	96	71	78	359	90	57	22	14	1.0	1.3	.8
29	13	85	72	77	-------	100	48	18	13	.8	1.3	.7
30	17	75	100	76	-------	79	39	20	12	.8	1.2	.7
31	24	-------	145	75	-------	62	-------	16	-------	.8	1.2	-------
1930-31												
1	0.7	1.2	14	1.8	12	24	68	25	17	38	3.0	4.0
2	.7	1.2	10	1.9	13	23	75	21	15	32	2.5	179
3	.7	1.6	4.0	3.0	13	22	412	18	14	27	5.4	157
4	.7	1.8	3.7	6.0	11	22	927	17	13	22	6.1	29
5	.5	2.5	4.3	30	11	20	711	15	11	18	111	17
6	.5	2.9	22	40	11	18	664	16	9.6	17	15	13
7	.5	3.4	27	30	13	17	596	16	61	15	5.0	9.2
8	.5	4.6	11	24	13	18	376	483	69	14	3.5	6.4
9	.5	4.3	6.4	18	11	20	252	394	33	12	20	4.7
10	.5	3.6	5.4	14	11	22	153	342	24	9.6	14	4.5
11	.5	3.6	4.3	12	10	19	79	650	18	11	4.7	3.7
12	.5	3.6	3.6	11	11	19	54	531	14	8.7	3.5	2.8
13	.3	3.4	2.7	10	13	19	39	376	13	7.2	7.2	2.8
14	.3	2.9	2.3	9.5	12	19	34	326	12	6.4	4.0	3.3
15	.3	2.5	2.2	9.0	13	18	30	265	99	5.8	3.0	3.8
16	.3	2.3	2.1	8.5	14	17	29	234	112	5.4	1.9	2.5
17	.3	2.3	2.0	8.0	22	22	26	219	103	8.1	1.8	2.3
18	.3	3.2	2.0	8.0	34	31	24	216	61	6.8	1.8	11
19	.3	2.9	2.3	8.5	39	29	23	174	43	5.0	4.7	4.7
20	.3	2.5	2.0	9.0	42	24	22	164	34	4.2	9.2	6.1
21	.3	2.1	1.9	8.0	35	22	20	177	29	115	4.7	28
22	.3	1.8	1.9	7.9	33	31	18	219	162	77	3.5	12
23	.3	1.8	1.8	7.8	31	44	23	183	568	23	3.0	6.4
24	.5	2.1	1.8	7.8	31	84	35	105	287	13	2.5	7.2
25	.7	2.5	2.0	8.5	31	98	54	64	98	11	2.2	6.1
26	.7	2.5	2.5	10	26	80	56	54	79	7.8	5.0	84
27	.8	2.1	3.0	9.0	23	75	50	43	69	6.1	6.4	48
28	1.0	1.9	2.6	9.0	22	92	44	34	57	5.4	6.4	26
29	1.0	1.8	2.2	11	-------	88	41	24	46	4.7	3.3	15
30	1.0	2.2	2.1	14	-------	75	32	20	40	5.0	3.7	11
31	1.2	-------	1.9	13	-------	64	-------	18	-------	4.0	8.2	-------

Daily discharge, in second-feet, of Turtle Creek at Trafford, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	8.2	4.2	75	508	140	16	538	14	6.1	1.7	0.9	1.1
2	7 5	4.0	33	810	123	14	274	15	5.4	2.3	.9	.9
3	6.1	3.3	23	664	156	13	166	11	4.7	2.3	.9	.9
4	3.5	3.3	26	510	161	24	118	9.2	4.7	4.7	1.5	.8
5	7.8	3.3	32	412	140	22	98	11	4.2	7.8	1.5	.8
6	5.8	3.3	32	563	100	30	75	13	3.7	4.2	1.3	.6
7	3.7	3.3	28	523	86	44	64	12	3.3	2.2	1.0	.5
8	6.8	3.3	26	133	82	37	47	11	2.8	5.8	.9	.3
9	7.8	3.0	30	113	77	33	57	16	2.3	4.0	.9	.3
10	3.7	2.8	33	100	80	30	44	130	2.2	2.2	.6	.3
11	3.3	2.5	155	80	62	29	41	172	2.1	1.8	1.1	.3
12	4.7	3.0	352	64	53	29	47	172	4.0	1.3	.7	.3
13	3.7	18	680	57	44	29	46	158	7.2	1.2	.5	.3
14	9.6	7.8	335	54	47	28	46	118	7.8	.9	.5	.7
15	9.2	10	177	51	43	28	40	77	3.7	.9	.5	.5
16	8.7	15	123	44	44	29	28	56	5.8	1.1	.3	.3
17	13	7.5	84	41	50	50	26	39	4.2	1.0	.3	.3
18	11	7.5	62	64	44	135	32	29	2.8	.9	1.8	.3
19	7.5	6.8	44	56	36	107	27	22	1.9	.9	1.6	.3
20	5.4	6.1	36	43	32	82	24	21	2.3	.9	.9	.3
21	4.2	11	29	44	30	100	22	18	2.5	.9	.8	.3
22	4.2	31	109	51	28	205	21	14	1.9	10	.7	.5
23	4.2	21	234	129	28	188	18	14	1.6	2.1	.6	.3
24	4.5	14	557	246	26	103	17	13	1.6	1.3	.5	.3
25	6.4	12	278	210	24	84	18	14	1.6	.9	.5	.4
26	4.7	12	136	148	23	86	17	12	1.6	.9	.3	.3
27	4.2	13	96	122	23	79	16	11	7.2	1.6	2.1	.5
28	4.2	13	80	103	20	224	14	9.2	4.2	4.2	1.6	2.1
29	4.5	49	68	80	18	342	13	8.2	2.5	1.5	1.6	1.2
30	4.2	100	48	197	-------	262	14	8.2	1.8	1.1	1.3	.9
31	4.2	-------	39	196	-------	593	-------	6.8	-------	.9	1.2	-------

Note.—Discharge estimated for periods of no gage-height record, Dec. 1-12, 16, 23, 25-30, 1928, Jan. 1, 6, May 19, 1929, June 25-26, 1931, and for periods of ice effect, Jan. 30 to Feb. 24, Nov. 29 to Dec. 12, Dec. 23-30, 1929, Jan. 19 to Feb. 16, 17, Nov. 27 to Dec. 4, Dec. 15-31, 1930, Jan. 1-29, Feb. 10-12, Mar. 11-13, Dec. 8-9, 1931, Mar. 8-17, 1932.

Monthly discharge, in second-feet, of Turtle Creek at Trafford, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	----------	----------	6.80	0.124	0.14
November	----------	----------	13.0	.236	.26
December	110	14	38.5	.700	.81
January	601	14	103	1.87	2.16
February	2,030	9.0	136	2.47	2.57
March	658	67	167	3.04	3.50
April	873	42	264	4.80	5.36
May	658	67	220	4.00	4.61
June	79	7.4	26.4	.480	.54
July	725	3.4	16.1	.293	.34
August	24	2.5	4.64	.084	.10
September	6.8	2.3	2.97	.054	.06
The year	2,030	2.3	82.9	1.51	20.45

Monthly discharge, in second-feet, of Turtle Creek at Trafford, 1928-1932—Continued.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1929-30					
October	374	3.2	43.4	0.789	0.91
November	495	17	95.8	1.74	1.94
December	460	55	111	2.02	2.33
January	288	37	120	2.18	2.51
February	1,270	48	216	3.93	4.09
March	359	62	152	2.76	3.18
April	169	39	85.9	1.56	1.74
May	166	14	43.6	.793	.91
June	418	5.4	48.9	.889	.99
July	11	.8	4.37	.079	.09
August	1.6	.4	.95	.017	.02
September	1.4	.7	1.22	.022	.02
The year	1,270	.4	75.9	1.38	18.73
1930-31					
October	1.2	.3	.55	.010	.01
November	4.6	1.2	2.57	.047	.05
December	27	1.8	5.06	.092	.11
January	40	1.8	11.9	.215	.25
February	42	10	20.0	.364	.38
March	98	17	37.9	.689	.79
April	927	18	166	3.02	3.37
May	650	15	176	3.20	3.69
June	568	9.6	73.7	1.34	1.50
July	115	4.0	17.6	.320	.37
August	111	1.8	8.91	.162	.19
September	179	2.3	23.7	.431	.48
The year	927	.3	45.2	.822	11.19
1931-32					
October	13	3.3	6.02	.109	.13
November	100	2.5	13.1	.238	.27
December	680	23	131	2.38	2.74
January	810	41	207	3.76	4.34
February	161	18	62.8	1.14	1.23
March	593	13	99.2	1.80	2.08
April	538	13	66.9	1.22	1.36
May	172	6.8	39.8	.724	.83
June	7.8	1.6	3.59	.065	.07
July	10	.9	2.37	.043	.05
August	2.1	.3	.961	.017	.02
September	2.1	.3	.563	.010	.01
The year	810	.3	53.1	.965	13.13

OHIO BASIN—STATION NO. 31

CHARTIERS CREEK AT CARNEGIE

LOCATION.—Chain gage at Main Street Bridge at Carnegie, Allegheny County. Chain gage at Pennsylvania Railroad bridge 1,500 feet upstream used prior to Jan. 8, 1932.

DRAINAGE AREA.—260 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 9,420 second-feet Feb. 26 (gage height, 12.2 feet from graph based on gage readings); minimum, 19 second-feet Sept. 3-5 (gage height, 1.46 feet).

Maximum discharge during year ending Sept. 30, 1930, about 4,960 second-feet Nov. 18 (gage height, 9.2 feet from graph based on gage readings); minimum, 22 second-feet Aug. 7, 8 (gage height, 1.42 feet).

Maximum discharge during period ending June 30, 1931, about 6,010 second-feet Apr. 4 (gage height, 10.03 feet); minimum discharge (estimated), 20 second-feet Dec. 18; minimum gage height, 1.42 feet Dec. 17.

Maximum discharge during period ending Sept. 30, 1932 (estimated), 2,390 second-feet Jan. 30 (gage height, 4.8 feet from graph based on gage readings); minimum, 16 second-feet at times in September (gage height, 0.56 foot).

1915-1932: Maximum and minimum discharge not determined. Maximum gage height, 16.1 feet at former site June 17, 1920; minimum, 1.19 feet at former site Oct. 7-9, 1916.

REMARKS.—Records poor. Records not determined for July 1, 1931, to Jan. 7, 1932, owing to unstable channel conditions. Gage reader paid by United States Engineer Office, Pittsburgh, Pa.

Daily discharge, in second-feet, of Chartiers Creek at Carnegie, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	41	32	359	115	140	745	232	437	260	70	27	24
2	52	36	142	125	120	1,200	206	520	232	86	33	22
3	50	42	97	96	95	793	172	1,200	206	74	102	20
4	45	39	84	84	80	607	306	793	172	75	142	19
5	43	35	102	84	80	1,520	793	698	172	275	62	19
6	44	32	100	341	99	1,340	698	652	172	152	32	21
7	48	30	89	152	100	1,390	417	1,040	194	117	33	24
8	41	35	81	114	110	745	323	793	219	206	39	27
9	39	44	75	142	110	563	359	607	182	520	35	24
10	36	41	65	172	95	397	793	520	142	260	34	25
11	35	38	71	152	90	341	892	437	184	112	36	27
12	35	40	55	109	80	323	842	378	119	84	33	24
13	33	43	58	85	75	323	842	397	112	67	38	27
14	32	46	88	54	70	607	698	585	152	71	47	39
15	32	48	306	62	75	842	892	607	125	64	59	35
16	33	42	206	69	90	745	1,880	520	103	58	44	34
17	38	38	194	172	110	563	2,380	417	109	54	38	48
18	111	43	585	842	100	417	1,390	397	122	54	33	34
19	125	56	359	1,340	80	359	892	2,040	100	49	33	28
20	81	152	219	585	60	378	793	1,520	260	44	32	28
21	48	114	161	341	48	341	1,260	2,120	142	39	30	24
22	38	76	122	232	44	306	1,340	1,470	97	41	28	21
23	42	73	96	698	44	437	944	944	91	43	65	21
24	46	66	100	607	80	359	698	745	82	39	74	20
25	43	55	97	1,200	1,340	323	607	652	84	54	46	22
26	44	45	93	892	6,860	417	842	520	94	64	35	24
27	51	54	85	520	1,740	397	607	417	94	54	31	25
28	44	64	84	359	1,080	323	542	378	397	43	33	24
29	39	51	80	232	-------	275	585	437	182	35	31	27
30	38	88	77	206	-------	260	520	359	97	33	28	26
31	36	-------	74	172	-------	260	-------	323	-------	30	26	-------
1929-30												
1	23	67	85	360	125	652	310	123	64	56	24	31
2	369	61	75	542	130	1,000	892	114	56	76	24	30
3	1,370	134	70	793	145	842	585	102	60	58	24	36
4	620	206	70	542	160	698	462	97	55	46	25	32
5	248	134	80	404	386	542	404	104	49	44	23	34
6	134	103	100	351	245	698	334	444	66	45	23	33
7	98	81	130	351	208	1,710	351	254	57	42	22	28
8	77	74	197	318	176	1,740	318	176	51	45	22	28
9	66	67	166	563	176	1,220	287	127	52	41	25	35
10	57	67	146	501	245	892	245	111	249	39	28	33
11	58	71	128	423	220	745	220	105	404	39	25	33
12	51	69	157	462	186	745	220	108	202	35	23	30
13	57	71	1,100	793	197	652	208	104	125	33	24	35
14	44	285	1,570	793	220	542	258	116	99	33	41	31
15	45	862	904	652	176	481	232	128	76	32	39	28
16	48	430	563	481	146	442	245	186	71	37	32	33
17	43	641	481	404	135	386	232	146	83	33	28	33
18	38	3,610	501	368	130	462	220	137	97	30	27	33
19	35	2,160	521	232	130	842	220	134	156	28	29	28
20	35	835	386	180	140	563	197	197	137	32	27	26
21	31	521	300	160	145	442	186	120	84	27	25	25
22	78	351	265	145	156	368	220	98	62	28	30	31
23	206	318	245	135	156	334	197	90	94	29	38	41
24	125	272	220	125	176	318	197	114	272	41	35	38
25	79	245	200	120	754	318	176	99	176	32	39	31
26	65	220	190	120	2,420	563	156	84	111	30	32	29
27	56	220	210	130	1,520	442	146	87	73	41	27	31
28	50	258	290	160	793	368	137	88	61	42	28	27
29	43	197	270	145	-------	442	137	78	52	39	30	27
30	49	114	260	135	-------	386	130	71	54	31	32	26
31	62	-------	255	130	-------	334	-------	68	-------	24	30	-------

Daily discharge, in second-feet, of Chartiers Creek at Carnegie, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	97	35	37	23	41	70	393	118	146	-------	-------	-------
2	28	32	35	23	39	61	842	111	127	-------	-------	-------
3	30	32	33	24	33	55	1,080	108	105	-------	-------	-------
4	28	34	34	26	35	51	4,390	99	112	-------	-------	-------
5	27	42	37	39	33	48	1,630	92	146	-------	-------	-------
6	27	41	105	55	32	45	846	88	117	-------	-------	-------
7	28	40	116	45	58	52	607	114	347	-------	-------	-------
8	33	36	71	36	64	62	521	617	524	-------	-------	-------
9	41	36	51	33	66	74	386	460	290	-------	-------	-------
10	37	33	49	31	61	68	351	272	197	-------	-------	-------
11	35	32	44	31	57	56	404	258	166	-------	-------	-------
12	31	36	39	38	60	56	287	252	137	-------	-------	-------
13	30	42	38	40	240	54	258	669	117	-------	-------	-------
14	30	49	35	41	607	60	232	1,030	146	-------	-------	-------
15	28	42	31	36	316	70	197	689	156	-------	-------	-------
16	29	38	30	32	135	66	186	423	146	-------	-------	-------
17	36	36	22	30	110	68	176	334	137	-------	-------	-------
18	36	36	20	30	176	60	166	287	118	-------	-------	-------
19	33	36	21	45	186	84	146	272	111	-------	-------	-------
20	32	35	24	49	220	146	130	258	104	-------	-------	-------
21	32	33	23	45	208	130	120	208	127	-------	-------	-------
22	31	33	22	39	156	111	176	197	333	-------	-------	-------
23	30	31	22	35	123	97	186	232	508	-------	-------	-------
24	33	33	22	34	108	95	176	197	154	-------	-------	-------
25	41	36	22	42	83	146	146	222	116	-------	-------	-------
26	36	33	23	44	82	220	137	424	137	-------	-------	-------
27	35	31	28	39	81	245	166	316	156	-------	-------	-------
28	38	30	26	49	76	276	146	208	137	-------	-------	-------
29	41	30	25	49	-------	552	134	176	102	-------	-------	-------
30	36	31	24	44	-------	406	130	156	82	-------	-------	-------
31	41	-------	24	45	-------	272	-------	166	-------	-------	-------	-------
1932												
1	-------	545	123	1,340	136	83	42	44	24			
2	-------	472	119	847	126	76	38	39	26			
3	-------	496	116	622	107	71	35	37	60			
4	-------	520	171	496	107	72	55	32	37			
5	-------	472	212	449	114	72	54	28	24			
6	-------	427	189	405	114	64	54	25	22			
7	-------	384	131	351	101	67	81	24	19			
8	-------	384	120	339	103	62	60	22	22			
9	520	347	115	363	154	66	47	22	24			
10	449	343	112	319	186	56	38	23	20			
11	363	323	110	312	545	51	39	28	22			
12	335	308	110	355	649	54	39	27	18			
13	323	267	110	335	649	58	35	24	19			
14	300	271	110	319	449	66	29	24	49			
15	278	232	115	289	384	60	34	24	27			
16	304	218	125	274	296	62	122	22	26			
17	289	256	203	246	256	58	72	21	22			
18	520	218	384	232	218	64	42	78	20			
19	363	193	319	222	159	60	35	65	17			
20	323	180	293	196	177	101	28	38	18			
21	285	163	440	189	154	62	26	28	18			
22	285	168	1,180	183	144	52	37	21	17			
23	445	168	732	186	128	40	29	22	34			
24	1,040	157	472	160	131	36	26	21	24			
25	622	146	384	189	116	31	20	22	22			
26	472	146	363	189	105	31	22	23	23			
27	449	141	327	160	112	55	34	28	25			
28	384	151	711	141	105	67	76	34	49			
29	374	131	1,210	131	97	52	649	29	36			
30	1,680	-------	1,000	136	87	40	121	27	27			
31	907	-------	956	-------	81	-------	62	24	-------			

Note.—Discharge estimated for periods of ice effect, Feb. 1-24, Dec. 1-7, 21-31, 1929, Jan. 1, Jan. 20 to Feb. 4, Feb. 17-21, Nov. 27 to Dec. 5, Dec. 18-31, 1930, Jan. 1-5, 9-11, 16-18, 22-25, 1931, Mar. 8-16, 1932.

Monthly discharge, in second-feet, of Chartiers Creek at Carnegie, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	125	32	47.2	0.182	0.21
November	152	30	53.3	.205	.23
December	585	55	142	.546	.63
January	1,340	54	334	1.28	1.48
February	3,360	44	467	1.80	1.87
March	1,520	260	577	2.22	2.56
April	2,380	172	792	3.05	3.40
May	2,040	323	739	2.84	3.27
June	397	82	155	.596	.66
July	520	30	95.7	.368	.42
August	142	26	43.8	.168	.19
September	48	19	26.1	.100	.11
The year	6,860	19	288	1.11	15.03
1929-30					
October	1,370	23	141	.542	.62
November	3,610	61	425	1.63	1.82
December	1,570	70	327	1.26	1.45
January	793	120	355	1.37	1.58
February	2,420	125	350	1.35	1.41
March	1,740	318	651	2.50	2.88
April	892	130	271	1.04	1.16
May	444	68	129	.496	.57
June	404	49	108	.415	.46
July	76	24	38.3	.147	.17
August	41	22	28.4	.109	.13
September	41	25	31.2	.120	.13
The year	3,610	22	237	.912	12.38
1930-31					
October	41	27	32.9	.127	.15
November	49	30	35.5	.137	.15
December	116	20	36.5	.140	.16
January	55	23	37.8	.145	.17
February	607	32	124	.477	.50
March	552	45	124	.477	.55
April	4,390	120	492	1.89	2.11
May	1,030	88	292	1.12	1.29
June	524	82	177	.681	.76
1932					
January 9-31	1,680	278	492	1.89	1.62
February	545	131	284	1.09	1.18
March	1,210	110	357	1.37	1.58
April	1,340	131	332	1.28	1.43
May	649	81	204	.785	.90
June	101	31	59.6	.229	.26
July	649	20	67.1	.258	.30
August	78	21	29.9	.115	.13
September	60	17	26.4	.102	.11

BEAVER RIVER AT WAMPUM

LOCATION.—Chain gage at highway bridge at Wampum, Lawrence County.

DRAINAGE AREA.—2,235 square miles.

RECORDS AVAILABLE.—August and September 1932.

EXTREMES.—Maximum discharge during period, 497 second-feet Aug. 30 (gage height, 2.65 feet); minimum, 109 second-feet Sept. 22 (gage height, 1.73 feet).

REMARKS.—Records good. Cost of all equipment, maintenance, and operation of station paid by United States Engineer Office, Pittsburgh, Pa.

Daily and monthly discharge, in second-feet, 1932.

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1		364	11		183	21		140
2		267	12		177	22		120
3		223	13		170	23		140
4		212	14		174	24		154
5		251	15		187	25		187
6		235	16		174	26		164
7		235	17		164	27	235	197
8		208	18		154	28	259	439
9		205	19		145	29	243	235
10		187	20		128	30	467	227
						31	401	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
August 27-31	467	235	321	0.144	0.03
September	439	120	202	.090	.10

OHIO BASIN—STATION NO. 33

SHENANGO RIVER NEAR JAMESTOWN

LOCATION.—Chain gage at Frye Bridge 2 miles (revised) downstream from Jamestown, Mercer County. Zero of gage is 955.00 feet above mean sea level.

DRAINAGE AREA.—182 square miles.

RECORDS AVAILABLE.—December, 1919, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, about 2,790 second-feet Jan. 20 (gage height, 9.1 feet from graph based on gage readings); minimum, 5.4 second-feet Aug. 22, Sept. 5 (gage height, 1.20 feet).

Maximum discharge during year ending Sept. 30, 1930, 2,180 second-feet Jan. 14 (gage height, 7.8 feet from graph based on gage readings); minimum, 2.7 second-feet Aug. 13 (gage height, 1.01 feet).

Maximum discharge during year ending Sept. 30, 1931, 1,240 second-feet Apr. 4 (gage height, 5.63 feet); minimum, 4.1 second-feet Sept. 24 (gage height, 1.13 feet).

Maximum discharge during year ending Sept. 30, 1932, 2,130 second-feet May 9 (gage height, 7.71 feet from graph based on gage readings); minimum, 3.5 second-feet Sept. 13, 17, 19, 20, 21 (gage height, 1.10 feet).

1919-1932: Maximum gage height (estimated), 9.6 feet Mar. 13, 1920 (discharge not determined); minimum discharge, 1.3 second-feet Aug. 20, 1923 (gage height, 1.03 feet).

REMARKS.—Records fair except those for periods of ice effect, which are poor. Regulation from natural storage in Pymatuning Swamp and mill operations at Jamestown.

Daily discharge, in second-feet, of Shenango River near Jamestown, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	10	83	920	158	158	1,280	640	480	107	50	54	11
2	8.4	90	710	99	110	815	640	570	98	48	51	7.8
3	7.8	84	710	80	90	675	480	1,520	105	40	51	7.3
4	8.9	77	510	80	70	605	540	2,000	94	148	53	7.8
5	10	79	420	110	70	710	1,280	1,950	84	127	41	6.5
6	9.5	72	317	240	100	640	1,320	1,280	68	98	37	8.4
7	9.5	68	246	180	107	510	1,400	885	57	92	32	7.3
8	7.8	77	224	160	101	420	815	605	48	81	25	7.3
9	7.8	72	191	180	94	360	570	450	46	117	20	8.9
10	8.9	75	169	200	88	304	450	330	40	317	22	7.3
11	8.4	68	169	170	85	280	450	235	34	158	18	6.2
12	9.5	64	158	140	80	235	540	224	27	148	21	17
13	12	117	107	110	70	257	570	292	25	360	18	21
14	14	148	107	90	70	450	510	675	35	330	12	16
15	12	127	158	80	65	640	480	920	35	246	14	12
16	13	127	158	70	60	1,040	450	1,000	28	180	15	18
17	16	148	180	80	55	1,040	390	350	43	127	13	18
18	60	148	390	1,040	55	815	292	605	44	105	13	24
19	54	330	317	2,180	55	675	292	780	48	88	9.5	23
20	41	450	280	2,690	55	710	330	605	37	75	14	21
21	44	360	260	2,040	55	1,160	605	710	30	56	10	23
22	56	450	240	1,160	55	1,560	745	710	32	40	6.2	18
23	65	570	220	780	50	1,360	960	570	30	30	22	17
24	65	540	180	540	48	1,240	640	480	24	25	14	19
25	74	510	150	710	55	960	510	330	23	30	17	16
26	94	480	130	640	1,080	1,240	450	257	35	22	21	13
27	92	420	110	540	1,280	920	360	202	37	25	16	12
28	81	390	100	420	1,730	605	420	158	67	27	12	12
29	88	420	90	304	------	540	675	158	74	31	11	12
30	83	710	107	246	-------	450	540	138	65	37	8.4	12
31	84	-------	169	202	-------	420	------	127	-------	46	7.8	------
1929-30												
1	9.0	79	127	271	148	885	570	96	15	17	4.4	7.1
2	13	148	117	780	148	640	675	77	13	18	3.6	5.2
3	34	138	107	1,200	169	540	640	67	12	25	4.9	4.1
4	27	96	101	1,360	202	420	510	62	16	24	4.7	5.2
5	31	96	98	1,160	224	390	420	56	18	31	4.4	4.6
6	27	99	107	745	224	390	304	48	14	25	3.8	5.2
7	23	92	148	540	202	540	360	46	10	18	3.9	5.2
8	22	77	675	918	180	1,080	390	48	9.0	15	4.7	4.7
9	17	74	540	1,440	170	1,160	450	40	16	12	4.4	4.6
10	18	75	540	1,730	170	1,000	570	34	19	8.2	3.2	3.9
11	21	96	540	1,400	186	850	510	31	34	8.2	4.2	3.8
12	12	96	640	1,330	190	675	420	25	34	7.9	3.8	4.4
13	12	81	605	1,870	300	570	317	20	45	11	3.1	4.6
14	12	191	640	2,090	1,000	570	246	22	35	18	3.4	3.6
15	14	191	605	1,950	1,000	510	219	19	27	81	3.8	5.6
16	12	169	675	1,360	885	420	707	26	36	68	3.8	5.0
17	12	194	745	815	500	360	850	25	32	64	3.5	4.6
18	12	1,250	1,040	510	400	330	1,000	29	32	54	3.9	4.9
19	12	1,560	1,080	360	320	330	960	40	45	56	3.4	6.7
20	12	1,200	1,080	304	292	317	640	50	65	32	3.6	6.3
24	59	390	450	191	450	180	191	32	46	8.6	4.7	5.0
22	23	675	780	235	420	268	292	50	62	15	4.2	6.0
23	67	540	605	213	450	224	235	39	57	8.6	4.6	4.6
24	59	390	450	191	450	180	191	32	46	8.6	4.7	5.0
25	84	202	268	169	570	193	169	29	27	8.2	4.7	6.3
26	62	235	202	158	1,000	450	138	30	18	8.6	4.9	5.6
27	62	202	169	148	1,360	540	117	26	23	6.7	5.2	14
28	62	169	158	148	1,320	640	117	23	21	5.0	4.7	13
29	59	158	158	138	-----	605	107	24	24	4.1	4.4	18
30	68	148	148	138	-----	570	96	21	21	4.4	4.6	15
31	68	-------	169	138	-----	570	-------	21	-------	4.7	4.2	-------

Daily discharge, in second-feet, of Shenango River near Jamestown, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1	12	23	100	26	380	148	480	292	127	15	6.7	9.0
2	9.7	25	140	27	330	117	745	180	101	14	13	12
3	5.2	27	130	28	260	103	960	148	90	12	17	16
4	7.5	26	110	32	190	94	1,200	127	81	12	24	16
5	7.1	19	160	50	150	92	920	99	75	13	30	9.0
6	6.3	21	224	140	125	86	745	92	60	23	27	21
7	5.2	17	292	180	122	88	480	102	101	17	16	17
8	9.0	15	330	220	125	84	330	505	138	16	12	16
9	17	16	450	180	148	72	246	360	117	18	10	12
10	18	17	450	180	180	54	180	420	107	17	9.0	11
11	30	16	292	190	213	60	169	420	117	15	11	8.6
12	24	20	268	175	127	65	148	390	103	11	13	7.1
13	17	24	213	155	158	72	127	390	96	7.5	24	6.7
14	15	21	180	140	202	64	117	317	86	9.0	38	7.5
15	12	26	148	130	202	88	101	268	88	11	40	5.6
16	7.5	30	110	115	235	101	94	246	75	9.7	30	5.6
17	8.2	30	88	100	213	127	88	510	64	8.2	20	6.0
18	10	26	72	90	330	169	83	360	54	9.7	15	5.2
19	10	25	60	80	317	235	67	317	56	9.7	12	5.2
20	13	32	48	100	330	280	59	280	48	9.7	9.0	5.0
21	18	27	38	90	390	390	51	257	26	15	8.2	5.6
22	13	23	33	84	330	450	78	246	27	16	7.5	6.0
23	16	17	30	78	292	450	235	570	25	14	6.7	5.0
24	17	16	28	70	257	420	180	480	23	14	5.6	4.2
25	15	15	27	70	246	420	213	360	20	12	5.2	4.6
26	15	14	26	100	246	390	420	420	17	12	4.7	5.6
27	12	14	26	240	191	390	540	360	16	11	13	7.5
28	16	15	27	380	169	420	480	280	14	8.6	19	7.9
29	16	16	28	500	-------	450	510	191	15	7.9	12	8.6
30	15	20	27	500	-------	450	390	158	14	8.2	9.7	8.6
31	22	-------	26	480	-------	480	-------	148	-------	7.1	9.0	-------
1931-32												
1	8.3	18	156	377	639	119	333	158	37	37	6.8	5.4
2	6.2	23	140	573	606	119	346	133	38	70	5.9	5.7
3	5.2	28	131	541	541	119	333	127	35	62	9.9	5.4
4	5.4	33	138	656	478	117	374	123	33	60	30	5.4
5	5.7	33	180	673	432	113	346	121	29	60	28	5.2
6	5.4	35	169	742	447	109	307	125	23	53	16	5.0
7	5.7	30	152	639	447	104	270	274	20	47	9.9	4.8
8	5.9	32	161	541	541	102	213	1,080	16	60	8.3	4.8
9	5.7	34	169	478	462	100	270	1,900	13	62	7.5	4.8
10	5.7	40	178	417	432	98	388	1,820	12	55	8.3	4.8
11	5.7	40	233	333	509	96	333	1,040	9.4	47	7.5	4.3
12	5.7	41	307	270	509	94	388	639	9.4	37	6.4	3.8
13	5.7	63	418	224	462	90	417	417	9.4	28	5.9	3.8
14	6.2	72	573	195	417	88	478	360	8.8	22	5.7	4.0
15	7.9	68	541	458	374	86	509	294	8.8	23	5.7	3.8
16	9.4	68	509	590	307	84	541	235	9.4	25	4.8	4.0
17	50	63	462	803	246	84	509	195	8.8	17	4.8	3.5
18	74	79	388	1,280	213	90	432	163	9.9	13	5.4	3.8
19	56	115	320	1,160	182	144	294	131	10	10	4.5	3.7
20	44	101	270	1,080	163	246	235	115	12	9.4	4.7	3.5
21	40	98	224	777	150	235	178	98	13	8.3	4.5	3.5
22	33	148	362	849	140	447	148	84	13	20	4.5	3.8
23	25	142	509	777	139	639	127	75	10	20	4.1	4.5
24	21	133	432	777	136	886	107	63	7.9	13	4.1	4.1
25	19	193	573	849	134	849	103	53	9.4	10	4.1	3.8
26	18	171	573	673	131	742	138	6.8	15	8.3	4.1	3.8
27	17	148	462	707	123	673	133	42	21	9.9	4.1	4.7
28	16	140	388	541	121	573	121	47	35	9.4	4.1	5.0
29	15	148	282	509	119	447	109	46	33	10	4.8	4.8
30	16	158	246	874	-------	346	135	48	29	8.8	6.2	5.0
31	18	-------	202	707	-------	333	-------	42	-------	7.9	5.7	-------

Note.—Discharge estimated for periods of ice effect, Dec. 20-23, 25-29, 1928, Jan. 3-17, Feb. 2-6, 11-25, Nov. 29 to Dec. 7, Dec. 11-12, 1929, Jan. 20 to Feb. 2, Feb. 8-19, Nov. 25 to Dec. 5, Dec. 16-31, 1930, Jan. 1 to Feb. 8, 1931, Feb. 21, 22, 24, 25, Mar. 7-16, 1932. Discharge estimated for days of missing gage heights, Aug. 24, 1930, Feb. 28, June 24, Oct. 10, 1931.

Monthly discharge, in second-feet, of Shenango River near Jamestown, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	94	7.8	37.2	0.204	0.24
November	710	64	245	1.35	1.51
December	920	90	264	1.45	1.67
January	2,690	70	507	2.79	3.22
February	1,730	48	214	1.18	1.23
March	1,560	235	739	4.06	4.68
April	1,400	292	611	3.36	3.75
May	2,000	127	648	3.56	4.10
June	107	23	50.7	.279	.31
July	360	22	107	.588	.68
August	54	6.2	21.9	.120	.14
September	24	6.2	13.7	.075	.08
The year	2,690	6.2	290	1.59	21.61
1929-30					
October	84	9.0	31.5	.173	.20
November	1,560	74	322	1.77	1.98
December	1,080	98	461	2.53	2.92
January	2,090	138	776	4.26	4.91
February	1,360	148	457	2.51	2.61
March	1,160	180	534	2.93	3.38
April	1,000	96	421	2.31	2.58
May	96	19	39.1	.215	.25
June	65	9.0	29.6	.163	.18
July	81	4.1	22.1	.121	.14
August	5.2	3.1	4.15	.023	.03
September	18	3.6	6.49	.036	.04
The year	2,090	3.1	258	1.42	19.22
1930-31					
October	30	5.2	13.5	.074	.09
November	32	14	21.1	.116	.13
December	450	26	135	.742	.86
January	500	26	159	.874	1.01
February	390	122	231	1.27	1.32
March	480	54	223	1.23	1.42
April	1,200	51	348	1.91	2.13
May	570	92	300	1.65	1.90
June	138	14	66.0	.363	.40
July	23	7.1	12.4	.068	.08
August	40	4.7	15.4	.085	.10
September	21	4.2	8.84	.049	.05
The year	1,200	4.2	127	.698	9.49
1931-32					
October	74	5.2	18.1	.099	.11
November	193	18	83.2	.457	.51
December	573	131	318	1.75	2.02
January	1,280	195	647	3.55	4.09
February	639	119	331	1.82	1.96
March	386	84	270	1.48	1.71
April	541	103	287	1.58	1.76
May	1,900	6.8	324	1.78	2.05
June	38	7.9	17.9	.098	.11
July	70	7.9	29.8	.164	.19
August	30	4.1	7.62	.042	.05
September	5.7	3.5	4.42	.024	.03
The year	1,900	3.5	195	1.07	14.59

SHENANGO RIVER AT SHARON

LOCATION.—Water-stage recorder and chain gage at Chestnut Street Bridge at Sharon, Mercer County. Zero of gage is 840.00 feet above mean sea level.

DRAINAGE AREA.—611 square miles.

RECORDS AVAILABLE.—August, 1909, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 9,250 second-feet Apr. 5 (gage height, 12.00 feet); minimum, 11 second-feet Sept. 7 (gage height, 1.78 feet).

Maximum discharge during year ending Sept. 30, 1930, 6,900 second-feet Jan. 14 (gage height, 10.5 feet from graph based on gage readings); minimum, 7.9 second-feet Aug. 11 (gage height, 1.74 feet).

Maximum discharge during year ending Sept. 30, 1931, 3,000 second-feet Apr. 4 (gage height, 7.15 feet); minimum, 19 second-feet Oct. 7, 8 (gage height, 1.88 feet).

Maximum discharge during year ending Sept. 30, 1932, 4,680 second-feet Jan. 18 (gage height, 8.82 feet); minimum, 6.5 second-feet Sept. 22 (gage height, 1.63 feet).

1909-1932: Maximum discharge (estimated), 25,200 second-feet Mar. 26, 1913 (gage height, 18.1 feet); minimum, that of Sept. 22, 1932.

REMARKS.—Records good except those for low stages, which are fair, and those for estimated periods, which are poor. Some regulation at low stages from mill operations upstream. Daily chain gage readings furnished by Carnegie Steel Co., Farrell, Pa.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	44	184	3,570	313	413	3,570	3,570	1,460	332	167	126	39
2	47	181	3,570	352	332	2,680	3,150	2,010	332	139	102	38
3	47	237	2,090	214	276	1,660	1,730	7,040	294	117	97	37
4	47	276	1,660	230	250	1,590	1,590	6,890	257	106	95	34
5	54	276	1,400	226	208	1,930	6,460	5,170	240	500	93	30
6	51	223	1,160	392	230	1,860	8,450	4,010	226	755	87	24
7	50	186	922	649	254	2,090	4,810	2,860	208	478	81	19
8	47	175	702	549	276	1,400	2,680	1,930	186	500	66	30
9	47	181	574	434	276	1,280	1,730	1,400	159	392	63	32
10	47	184	413	524	257	922	1,530	1,100	144	599	57	37
11	44	170	392	500	226	865	1,460	865	130	755	51	32
12	44	167	332	434	214	809	1,460	755	124	478	48	51
13	44	294	413	332	184	922	1,460	1,040	119	455	45	72
14	40	574	352	260	204	2,090	1,400	1,660	121	649	48	91
15	42	455	599	220	178	2,950	1,340	4,010	124	624	51	91
16	42	372	702	192	198	3,570	1,530	3,680	128	599	45	95
17	48	392	809	257	201	3,900	1,280	2,500	126	500	48	102
18	66	434	1,660	1,160	198	2,680	1,040	1,730	126	392	44	102
19	113	624	1,530	4,810	181	1,790	809	1,730	124	294	43	124
20	156	1,660	1,220	7,970	144	1,730	755	2,410	119	223	38	119
21	128	1,400	980	6,050	132	1,790	2,010	3,250	119	172	36	63
22	117	1,160	922	3,150	135	2,770	2,770	3,460	99	117	36	54
23	117	1,400	755	2,010	119	4,120	2,330	2,170	93	81	55	47
24	128	1,400	624	1,460	121	3,790	1,790	1,530	87	72	50	40
25	178	1,400	478	2,250	198	3,150	1,530	1,280	93	70	45	36
26	276	1,280	392	2,250	2,770	4,230	2,590	980	110	102	58	34
27	294	1,160	372	1,400	5,790	4,340	1,660	755	104	108	54	37
28	257	1,100	352	1,220	5,530	2,590	1,340	624	124	81	48	34
29	250	1,280	332	922	-------	1,730	2,410	599	189	186	45	34
30	230	1,930	294	755	-------	1,460	2,010	524	198	233	43	31
31	201	-------	240	574	-------	1,280	-------	413	-------	170	39	-------

Daily discharge, in second-feet, of Shenango River at Sharon, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	31	134	416	1,030	285	2,220	1,440	697	84	51	21	15
2	52	316	338	2,820	268	2,060	1,910	525	76	58	19	16
3	114	750	338	3 590	320	1,700	1,770	357	66	53	19	16
4	168	525	302	3,190	480	1,440	1,440	258	56	53	17	17
5	117	376	302	2,460	646	1,180	1,180	220	56	53	16	16
6	80	338	302	1,980	621	1,300	921	211	62	63	15	16
7	69	302	338	1,700	572	1,560	1,180	199	56	76	14	18
8	58	242	891	2,620	525	3,190	1,700	182	52	56	14	17
9	47	208	1,440	4,230	480	3,290	1,700	157	56	45	12	16
10	45	182	1,040	4,450	525	2,640	1,500	134	110	42	12	16
11	42	205	1,040	3,790	502	2,140	1,440	126	214	37	11	16
12	42	258	1,110	3,900	525	2,060	1,240	119	182	31	11	19
13	42	285	2,260	5,670	1,680	1,700	921	108	134	48	9.1	19
14	39	355	2,300	6,760	2,140	1,440	750	106	112	45	11	16
15	39	672	1,700	6,480	1,840	1,240	621	119	95	58	11	17
16	35	621	1,440	4,530	1,440	1,040	1,020	122	80	108	10	19
17	38	626	1,780	2,380	1,300	921	2,910	134	80	106	11	18
18	31	3,200	3,490	1,560	1,040	921	3,000	119	88	108	11	18
19	37	4,340	4,010	1,040	805	1,040	2,640	136	129	97	11	17
20	37	3,490	3,420	805	862	921	1,910	217	168	80	10	19
21	31	2,640	1,940	750	982	862	1,440	236	154	65	11	19
22	44	2,140	1,180	646	982	750	1,110	190	144	51	11	18
23	125	1,500	1,110	548	982	621	862	165	132	39	10	17
24	220	1,180	862	480	1,180	572	672	139	112	38	10	18
25	205	921	697	437	2,380	596	572	129	106	37	10	18
26	268	572	646	396	2,730	1,560	480	112	86	29	15	21
27	252	621	548	357	2,910	1,560	437	103	90	25	14	19
28	182	672	548	338	2,730	1,440	376	110	76	21	14	16
29	144	525	596	320	-------	1,440	376	100	56	21	14	18
30	136	396	596	302	-------	1,500	363	102	48	24	12	23
31	126	-------	596	302	-------	1,500	-------	90	-------	22	14	-------
1930-31												
1	29	42	130	49	372	320	1,370	551	396	66	26	32
2	29	44	290	50	525	302	2,550	697	338	58	30	49
3	26	48	280	53	396	268	2,640	548	285	48	29	54
4	25	53	270	58	357	236	2,910	416	239	46	32	80
5	24	45	280	68	285	202	2,530	338	211	41	45	73
6	23	39	357	176	252	176	1,840	302	182	37	43	62
7	21	38	480	458	230	182	1,440	286	478	42	41	56
8	27	39	621	502	302	182	1,100	1,610	921	53	37	53
9	26	38	672	396	357	162	805	1,770	750	43	35	47
10	30	35	750	376	338	152	596	1,300	480	39	36	41
11	34	34	697	396	302	132	548	1,240	357	40	35	37
12	35	37	596	376	338	132	525	1,110	285	36	40	35
13	35	37	437	320	376	134	416	1,040	252	35	47	34
14	41	47	338	258	805	132	357	1,180	220	34	45	31
15	45	55	285	210	805	190	302	982	190	34	47	30
16	32	51	171	160	697	320	268	805	179	35	56	30
17	31	51	135	140	697	437	236	862	154	38	58	30
18	26	55	105	120	1,040	572	224	1,180	134	36	67	28
19	27	56	85	120	1,240	805	202	1,340	122	35	45	25
20	27	53	75	135	1,180	982	179	1,300	117	42	42	25
21	24	48	68	160	1,180	1,110	154	982	108	47	43	23
22	25	42	60	220	1,040	1,240	178	805	86	50	40	22
23	31	39	53	200	862	1,110	705	1,980	80	59	33	23
24	34	37	50	180	750	982	921	2,340	71	66	31	23
25	30	34	48	260	621	921	750	1,630	75	60	43	27
26	28	33	51	357	502	1,040	1,290	1,300	97	50	42	27
27	27	31	53	697	437	982	2,140	1,040	154	41	42	28
28	28	30	49	750	396	982	1,630	805	108	39	37	26
29	32	31	49	805	-------	1,500	1,370	596	73	33	34	28
30	34	45	48	862	-------	1,440	1,240	437	67	31	36	33
31	35	-------	48	805	-------	1,180	-------	396	-------	30	30	-------

Daily discharge, in second-feet, of Shenango River at Sharon, 1928-1932.—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	32	34	262	1,010	1,630	309	1,400	636	101	199	31	19
2	29	35	302	2,460	1,440	285	1,400	596	108	314	29	23
3	27	36	265	2,300	1,400	275	1,210	450	117	331	37	21
4	30	37	236	1,740	1,530	278	952	380	110	349	34	23
5	30	39	292	1,560	1,500	292	862	368	99	306	54	23
6	27	46	416	2,000	1,240	285	750	420	82	239	59	19
7	25	53	380	2,300	1,210	265	621	940	71	202	46	19
8	24	56	316	1,660	1,400	188	562	2,060	64	252	38	21
9	24	56	295	1,340	1,400	175	894	2,910	60	224	35	17
10	26	56	299	1,140	1,210	165	1,440	3,590	59	173	36	16
11	23	59	366	921	1,440	163	1,470	3,200	54	139	29	16
12	21	62	857	724	1,630	160	1,500	2,120	54	112	26	15
13	20	69	1,150	636	1,400	160	1,560	1,630	52	90	28	18
14	26	78	2,020	562	1,140	160	1,500	1,340	54	78	27	16
15	23	126	2,060	1,420	982	160	1,600	1,110	53	70	24	14
16	24	134	1,470	3,290	805	165	1,440	892	55	60	19	14
17	29	134	1,180	3,330	724	175	1,210	656	53	48	21	13
18	48	142	982	4,680	697	199	1,010	480	53	43	23	13
19	119	168	805	4,230	586	291	805	361	50	45	22	13
20	134	249	661	2,780	489	608	626	295	47	41	20	11
21	106	249	558	2,140	433	834	493	252	51	41	18	9.0
22	95	246	658	2,860	424	1,930	396	220	54	37	16	7.5
23	80	258	1,550	3,290	408	2,300	331	190	69	35	16	15
24	69	258	1,500	3,090	316	1,840	278	168	62	40	17	14
25	58	242	1,470	2,300	292	1,840	282	149	56	36	19	14
26	43	295	1,400	1,840	316	1,700	902	130	57	41	17	12
27	42	306	1,180	2,140	342	1,530	894	118	55	42	16	17
28	42	268	982	1,910	349	1,270	586	115	89	35	16	27
29	41	249	805	1,500	334	1,010	424	122	112	34	20	23
30	39	242	661	2,740	-------	778	400	112	101	34	17	23
31	35	-------	534	2,560	-------	845	-------	108	-------	35	17	-------

Note.—Discharge estimated for periods of ice effect, Jan. 14, Dec. 1-5, 1929, Jan. 20 to Feb. 1, Nov. 25 to Dec. 5, Dec. 17-31, 1930, Jan. 1-5, 15-25, 1931, Mar. 9-17, 1932. Discharge estimated for period of probable obstruction of control, May 29 to June 8, 1930, and for periods during which recorder clock was stopped, May 7, 8, 26, 27, 1932.

Monthly discharge, in second-feet, of Shenango River at Sharon, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	294	40	106	0.173	0.20
November	1,930	167	692	1.13	1.26
December	3,570	240	962	1.57	1.81
January	7,970	192	1,360	2.23	2.57
February	5,790	119	696	1.14	1.19
March	4,340	809	2,310	3.78	4.36
April	8,450	755	2,290	3.75	4.18
May	7,040	413	2,250	3.68	4.24
June	332	87	161	.264	.29
July	755	70	326	.534	.62
August	126	36	59.3	.097	.11
September	124	19	53.6	.088	.10
The year	8,450	19	942	1.54	20.93
1929-30					
October	268	31	93.4	.153	.18
November	4,340	134	953	1.56	1.74
December	4,010	302	1,210	1.98	2.28
January	6,760	302	2,250	3.68	4.24
February	2,910	268	1,130	1.85	1.93
March	3,290	572	1,500	2.45	2.82
April	3,000	363	1,260	2.06	2.30
May	697	90	185	.303	.35
June	214	48	98.7	.162	.18
July	108	21	52.9	.087	.10
August	21	9.1	13.5	.022	.03
September	23	15	17.6	.029	.03
The year	6,760	9.1	729	1.19	16.18
1930-31					
October	45	21	29.7	.049	.06
November	56	30	42.2	.069	.08
December	750	48	246	.403	.46
January	862	49	312	.511	.59
February	1,240	230	606	.992	1.03
March	1,500	132	597	.977	1.13
April	2,910	154	1,050	1.72	1.92
May	2,340	286	1,020	1.67	1.92
June	921	67	240	.393	.44
July	66	30	43.4	.071	.08
August	67	26	40.2	.066	.08
September	80	22	37.1	.061	.07
The year	2,910	21	353	.578	7.86
1931-32					
October	134	20	44.9	.073	.08
November	306	34	143	.234	.26
December	2,060	236	836	1.37	1.58
January	4,680	562	2,140	3.50	4.04
February	1,630	292	933	1.53	1.65
March	2,300	160	666	1.09	1.26
April	1,600	278	927	1.52	1.70
May	3,590	108	843	1.38	1.59
June	117	47	70.1	.115	.13
July	349	34	120	.196	.23
August	59	16	26.7	.044	.05
September	27	7.5	16.8	.027	.03
The year	4,680	7.5	565	.925	12.60

SHENANGO RIVER AT NEW CASTLE

LOCATION.—Chain gage at West Washington Street Bridge at New Castle, Lawrence County. Zero of gage is 787.00 feet above mean sea level.

DRAINAGE AREA.—797 square miles.

RECORDS AVAILABLE.—January, 1910, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 14,200 second-feet Apr. 6 (gage height, 11.10 feet); minimum, 21 second-feet Sept. 10 (gage height, 0.71 foot).

Maximum discharge during year ending Sept. 30, 1930, 8,260 second-feet Jan. 15 (gage height, 8.25 feet); minimum, 6.0 second-feet Aug. 14 (gage height, 0.40 foot).

Maximum discharge during year ending Sept. 30, 1931, 3,920 second-feet Apr. 5 (gage height, 5.36 feet from graph based on gage readings); minimum, 10 second-feet Oct. 8 (gage height, 0.50 foot).

Maximum discharge during year ending Sept. 30, 1932, 5,980 second-feet Jan. 18 (gage height, 6.8 feet from graph based on gage readings); minimum, 12 second-feet Sept. 27 (gage height, 0.49 foot).

1910-1932: Maximum discharge (estimated), 39,800 second-feet Mar. 26, 1913 (gage height, 17.82 feet); minimum, that of Aug. 14, 1930.

REMARKS.—Records good except those for low stages, which are fair, and those for periods of ice effect, which are poor. Some regulation at low stages from power and diversion operations upstream. Water supply for City of New Castle diverted above station not included in records except in part of monthly table. Record of monthly diversion furnished by the city of New Castle.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	38	280	3,210	400	540	5,340	3,470	2,020	510	302	204	37
2	55	272	3,860	452	452	3,730	4,000	2,220	452	251	152	24
3	49	316	2,700	405	425	3,000	2,600	6,510	395	182	139	27
4	44	395	2,120	400	405	1,830	2,220	8,360	365	155	139	26
5	47	385	2,020	380	380	2,220	8,170	6,870	340	350	123	25
6	52	357	1,930	540	355	2,220	12,200	5,340	320	740	123	25
7	47	284	1,470	570	365	2,400	7,980	3,730	294	880	104	25
8	47	276	1,080	550	385	2,120	5,020	2,700	272	880	93	25
9	65	247	810	550	410	1,550	3,090	1,930	247	740	95	24
10	43	264	600	510	400	1,200	2,310	1,470	227	1,200	81	23
11	39	280	510	540	345	1,080	2,120	1,120	208	965	60	28
12	40	268	480	460	298	1,040	2,020	1,200	196	775	73	31
13	40	307	510	400	268	1,040	2,020	1,080	190	600	79	35
14	37	570	540	320	260	2,020	1,830	1,640	172	570	57	73
15	32	600	635	280	272	3,730	1,730	3,860	182	705	43	70
16	38	540	880	260	251	4,000	2,120	4,560	190	670	46	60
17	81	510	922	240	264	4,140	1,930	3,340	193	600	52	101
18	168	540	1,830	1,200	307	3,600	1,550	2,400	176	540	60	90
19	165	670	2,120	3,340	294	2,600	1,200	2,660	168	415	39	76
20	152	2,020	1,550	5,180	255	2,120	1,040	3,340	172	320	46	68
21	223	2,220	1,290	6,690	231	2,400	1,830	3,600	162	260	44	68
22	208	1,730	845	5,830	239	2,800	3,600	4,860	158	216	44	79
23	216	1,640	880	4,280	216	3,730	2,700	3,210	132	162	47	68
24	200	1,730	845	2,400	212	4,140	2,310	2,120	120	135	50	43
25	204	1,730	670	2,700	302	3,860	1,730	1,640	158	123	43	40
26	355	1,640	600	3,210	4,280	4,000	2,800	1,380	168	113	40	40
27	400	1,470	480	3,000	6,510	5,500	2,500	1,040	165	107	70	38
28	415	1,380	452	2,120	6,510	4,000	1,830	845	196	155	60	34
29	380	1,550	425	1,200	-------	2,500	2,020	1,040	208	145	50	33
30	340	1,930	420	1,040	-------	1,930	2,400	775	298	220	47	34
31	312	-------	385	705	-------	2,310	-------	635	-------	243	50	-------

Daily discharge, in second-feet, of Shenango River at New Castle, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	42	192	450	885	350	3,140	1,740	696	103	78	22	23
2	81	212	410	3,260	350	3,140	2,400	599	97	66	21	24
3	181	561	370	5,050	425	2,630	2,400	599	88	61	21	22
4	166	730	350	3,920	425	1,960	1,850	509	84	53	19	24
5	204	631	340	3,530	599	1,740	1,540	346	57	44	16	22
6	177	452	350	2,630	805	1,740	1,340	258	71	48	17	24
7	118	371	430	2,180	599	1,960	1,440	307	68	94	45	26
8	121	316	953	2,880	631	4,190	2,510	280	62	86	31	23
9	86	289	1,850	4,900	599	4,050	2,400	254	64	59	22	18
10	68	258	1,540	5,500	663	3,660	2,070	200	138	57	17	17
11	59	275	1,240	5,350	631	2,880	1,740	192	289	57	12	22
12	56	307	1,340	5,660	631	2,880	1,640	166	303	42	8.8	21
13	55	346	2,260	6,940	1,500	2,400	1,340	166	236	38	9.2	21
14	55	509	3,920	7,740	2,510	1,960	1,150	170	166	42	7.6	21
15	64	730	2,750	8,260	2,510	1,640	1,060	162	138	42	12	18
16	50	805	1,960	7,580	1,960	1,340	737	170	106	38	12	16
17	53	768	1,960	4,760	1,540	1,150	2,430	174	121	36	9.2	16
18	47	3,980	4,190	2,630	1,340	1,240	3,790	185	118	86	8.8	23
19	41	5,350	5,820	1,960	845	1,440	3,530	258	106	115	8.8	25
20	41	5,200	5,500	1,700	730	1,240	2,750	280	196	121	9.2	28
21	37	4,190	3,270	1,540	1,240	1,060	1,960	289	208	100	16	24
22	57	2,880	1,850	1,060	1,150	1,150	1,540	293	185	76	17	19
23	135	2,290	1,440	805	1,240	970	1,240	245	166	61	14	16
24	155	1,640	1,240	663	1,540	768	885	208	174	55	21	26
25	254	1,240	1,150	590	3,400	696	768	185	138	47	24	36
26	254	1,020	805	520	4,470	2,020	663	155	128	40	17	42
27	312	805	696	490	4,190	2,510	599	131	128	52	18	26
28	284	768	663	440	3,660	1,850	509	118	109	40	18	22
29	220	730	696	410	-------	1,740	452	115	91	34	24	20
30	192	538	730	380	-------	1,850	452	103	76	33	20	16
31	200	-------	730	360	-------	1,960	-------	106	-------	26	21	-------
1930-31												
1	14	62	95	50	845	425	1,440	1,240	538	91	30	42
2	25	78	152	49	663	376	3,140	928	480	86	30	48
3	30	50	321	48	599	351	3,530	730	420	68	26	68
4	31	66	341	52	538	312	3,660	568	346	48	24	88
5	24	66	361	53	480	275	3,400	509	331	43	30	106
6	15	71	387	103	298	254	2,510	382	284	53	35	115
7	24	68	425	283	307	245	1,960	346	536	61	36	76
8	21	53	631	509	346	245	1,440	1,650	1,750	76	34	61
9	30	53	696	480	371	236	1,060	2,880	1,340	78	35	52
10	54	52	768	409	452	236	845	1,640	805	68	40	59
11	59	53	805	409	371	208	696	1,540	568	55	42	44
12	34	61	805	414	321	188	631	1,340	425	41	79	37
13	30	71	631	393	398	174	538	1,340	366	34	47	33
14	44	62	538	351	696	159	480	1,740	331	36	37	20
15	43	53	430	275	885	249	403	1,340	289	40	41	16
16	74	66	340	230	805	452	361	1,060	298	46	32	23
17	109	91	220	181	805	568	326	928	232	42	33	32
18	97	86	170	162	1,100	631	298	1,340	212	48	48	34
19	76	97	140	128	1,540	663	271	1,340	188	40	74	27
20	52	97	120	141	1,440	1,060	254	1,640	170	35	84	30
21	43	81	105	162	1,340	1,100	220	1,240	166	47	59	22
22	31	66	90	188	1,150	1,240	220	1,060	152	78	32	20
23	26	66	82	216	1,060	1,240	912	1,340	128	94	32	23
24	22	52	75	192	928	1,150	1,150	2,290	112	71	26	26
25	23	48	70	224	696	1,100	970	2,400	91	46	32	25
26	24	47	66	289	599	1,150	1,220	1,740	97	44	50	29
27	30	45	69	591	568	1,240	2,880	1,340	124	42	62	33
28	43	43	72	805	480	1,150	2,400	1,020	141	42	84	41
29	68	46	70	768	-------	1,740	1,740	928	152	38	50	32
30	74	52	60	768	-------	1,850	1,440	730	112	32	43	40
31	57	-------	55	845	-------	1,440	-------	538	-------	34	29	-------

Daily discharge, in second-feet, of Shenango River at New Castle, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	36	41	298	914	2,400	403	1,440	631	145	174	41	40
2	34	35	331	2,870	2,070	382	1,640	805	138	208	54	25
3	30	34	316	3,080	1,740	351	1,740	599	135	404	79	23
4	28	32	316	2,400	1,960	376	1,340	509	155	568	69	24
5	21	34	356	1,960	2,070	393	1,100	452	155	599	51	22
6	20	44	425	2,510	1,640	403	970	509	138	403	43	21
7	28	53	509	3,270	1,640	376	805	509	124	316	45	24
8	33	66	393	2,400	1,440	303	663	1,140	115	509	39	23
9	27	53	356	1,640	1,850	280	1,060	3,010	89	387	53	22
10	30	76	316	1,440	1,540	255	1,850	3,920	81	371	45	22
11	25	78	420	1,340	1,740	240	2,180	4,470	64	326	45	29
12	16	71	631	928	2,180	225	2,180	3,400	54	174	43	22
13	16	76	1,440	805	1,850	215	2,180	2,400	56	124	38	17
14	33	76	2,400	696	1,540	205	1,960	1,850	64	106	34	18
15	29	94	2,880	1,080	1,240	200	2,070	1,640	53	100	29	24
16	42	155	2,070	3,800	970	200	1,850	1,150	81	89	24	25
17	44	166	1,540	4,470	885	205	1,850	845	138	86	30	24
18	38	196	1,150	5,660	885	240	1,440	663	106	74	34	22
19	36	200	970	5,820	805	312	1,060	509	64	54	34	19
20	146	280	805	4,330	663	568	805	452	50	64	32	15
21	155	280	663	2,880	599	1,020	663	366	57	65	28	16
22	138	293	677	3,790	568	2,040	538	341	56	81	21	24
23	118	280	1,490	4,750	538	3,400	452	341	62	64	14	22
24	103	280	2,070	4,750	480	2,400	382	266	53	47	16	17
25	91	280	1,960	3,530	393	2,180	376	185	56	38	18	15
26	74	275	1,640	2,630	376	2,180	989	141	76	41	20	14
27	37	382	1,340	2,510	420	1,850	1,540	162	224	67	24	15
28	40	321	1,150	2,630	425	1,740	929	166	112	59	27	19
29	47	275	970	2,070	452	1,340	631	155	97	86	27	15
30	44	254	805	2,750	-------	1,020	568	166	135	67	23	21
31	53	-------	663	2,630	-------	928	-------	162	-------	47	32	-------

Note.—Discharge estimated for periods of ice effect, Jan. 8, 9, 12-17, Dec. 1-7, 1929, Jan. 20, Jan. 25 to Feb. 2, Nov. 25, to Dec. 1, Dec. 15-31, 1930, Jan. 1, 2, 16, 1931, Mar. 9-18, 1932.

Monthly discharge, in second-feet, of Shenango River at New Castle, 1928-1932.

Month	Observed			Corrected for diversion		
	Maximum	Minimum	Mean	Mean	Per square mile	Run-off in inches
1928-29						
October	415	32	146	153	0.192	0.22
November	2,220	247	880	887	1.11	1.24
December	3,360	385	1,200	1,210	1.52	1.75
January	6,690	240	1,620	1,630	2.05	2.36
February	6,510	212	908	915	1.15	1.20
March	5,500	1,040	2,840	2,850	3.58	4.13
April	12,200	1,040	3,080	3,090	3.88	4.33
May	8,360	635	2,820	2,830	3.55	4.09
June	510	120	234	242	.304	.34
July	1,200	107	443	451	.566	.65
August	204	39	75.9	83.3	.105	.12
September	101	23	46.0	53.4	.067	.07
The year	12,200	23	1,190	1,200	1.51	20.50
1929-30						
October	312	37	125	132	.166	.19
November	5,350	192	1,280	1,290	1.62	1.81
December	5,820	340	1,650	1,660	2.08	2.40
January	8,260	360	3,050	3,060	3.84	4.43
February	4,470	350	1,450	1,460	1.83	1.91
March	4,190	696	2,030	2,040	2.56	2.95
April	3,790	452	1,630	1,640	2.06	2.30
May	696	103	255	262	.329	.38
June	303	57	134	142	.178	.20
July	121	26	58.9	66.7	.084	.10
August	45	8.8	17.4	25.2	.032	.04
September	42	16	22.7	30.1	.038	.04
The year	8,260	8.8	974	981	1.23	16.75
1930-31						
October	109	14	42.8	49.9	.063	.07
November	97	43	63.6	70.4	.088	.10
December	805	55	296	303	.380	.44
January	845	48	315	322	.404	.47
February	1,540	298	717	724	.908	.95
March	1,850	159	700	707	.887	1.02
April	3,660	220	1,350	1,360	1.71	1.91
May	2,880	346	1,260	1,270	1.59	1.83
June	1,750	91	373	380	.477	.53
July	94	32	53.5	60.7	.076	.09
August	84	24	43.1	50.2	.063	.07
September	115	16	43.4	50.4	.063	.07
The year	3,660	14	436	443	.556	7.55
1931-32						
October	155	16	52.0	58.8	.074	.09
November	382	32	159	165	.207	.23
December	2,880	298	1,010	1,020	1.28	1.48
January	5,820	696	2,780	2,790	3.50	4.04
February	2,400	376	1,220	1,230	1.54	1.66
March	3,400	200	846	852	1.07	1.23
April	2,180	376	1,240	1,250	1.57	1.75
May	4,470	141	1,030	1,040	1.30	1.50
June	224	50	97.8	104	.130	.14
July	599	38	187	193	.242	.28
August	79	14	35.9	42.4	.053	.06
September	40	14	21.3	27.7	.035	.04
The year	5,820	14	725	731	.917	12.50

LITTLE SHENANGO RIVER AT GREENVILLE

LOCATION.—Staff gage at Columbia Avenue Bridge at Greenville, Mercer County. Zero of gage is 944.50 feet above mean sea level.

DRAINAGE AREA.—107 square miles.

RECORDS AVAILABLE.—January, 1914, to August, 1923; November, 1925, to September, 1932.

EXTREMES.—Maximum discharge during year ending Sept. 30, 1929, 3,220 second-feet May 3 (gage height, 7.0 feet from graph based on gage readings); minimum, 5.7 second-feet Aug. 20 (gage height, 1.00 foot).

Maximum discharge during year ending Sept. 30, 1930, 2,140 second-feet Jan. 14 (gage height, 5.5 feet from graph based on gage readings); minimum, 4.4 second-feet July 12, Sept. 22-24 (gage height, 0.88 foot).

Maximum discharge during year ending Sept. 30, 1931, 970 second-feet May 23 (gage height, 3.84 feet); minimum, 4.4 second-feet at times in October (gage height, 0.88 foot).

Maximum discharge during year ending Sept. 30, 1932, 1,720 second-feet Jan. 18 (gage height, 4.9 feet from graph based on gage readings); minimum, 4.4 second-feet Sept. 18 (gage height, 0.88 foot).

1914-1923, 1925-1932: Maximum discharge, 3,220 second-feet Dec. 1, 1927, May 3, 1929; maximum gage height, 9.60 feet, affected by ice, Feb. 26, 1926; minimum discharge, 2.0 second-feet Aug. 21, 1923 (gage height, 0.91 foot).

REMARKS.—Records good except those for low stages, which are fair, and those for estimated periods, which are poor. Some regulation at low stages from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	12	42	900	50	80	438	1,080	228	87	54	25	12
2	15	45	394	75	65	279	843	279	73	51	18	11
3	15	45	262	65	50	171	316	2,350	71	51	16	11
4	14	106	171	55	50	244	279	1,210	60	60	22	12
5	14	76	138	73	42	416	1,630	681	62	110	14	9.1
6	18	63	138	184	50	279	1,490	461	59	316	14	8.1
7	14	45	110	128	55	200	761	438	57	106	13	18
8	14	56	90	100	55	160	244	244	54	90	14	12
9	13	63	87	94	55	150	228	198	50	92	14	9.1
10	15	67	104	100	50	140	279	158	52	212	9.1	10
11	14	59	87	98	46	131	298	133	50	198	12	12
12	12	51	65	80	42	156	279	153	48	83	14	7.9
13	14	184	68	65	36	212	244	335	51	59	15	9.1
14	10	153	87	55	28	681	198	438	57	57	14	13
15	12	100	106	42	28	843	158	1,350	56	50	20	15
16	19	82	153	42	24	843	316	1,210	52	39	18	9.1
17	19	90	128	55	22	630	228	843	59	35	19	14
18	16	88	244	843	22	262	171	681	54	29	12	25
19	73	146	180	2,070	22	228	153	630	48	31	7.9	22
20	39	340	120	960	22	354	158	630	51	27	6.2	13
21	31	360	100	316	22	313	734	843	42	23	8.4	9.1
22	31	220	90	212	22	843	630	843	38	24	8.1	12
23	36	220	88	212	22	734	354	316	36	20	13	8.1
24	45	220	106	244	22	555	184	212	38	28	27	10
25	80	170	100	843	28	461	184	184	51	100	13	9.1
26	115	143	80	656	788	960	630	156	62	70	14	9.1
27	98	133	75	335	2,070	734	316	124	54	44	9.1	9.1
28	90	130	55	184	1,080	335	212	110	90	41	7.9	12
29	73	150	55	150	-------	212	734	156	115	59	9.1	14
30	59	354	50	120	-------	198	461	128	71	48	7.6	7.9
31	51	-------	50	100	-------	262	-------	115	-------	35	10	-------

Daily discharge, in second-feet, of Little Shenango River at Greenville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	6.8	184	100	160	70	556	262	229	23	12	5.4	5.8
2	9.3	114	90	1,000	100	462	397	187	23	17	5.4	6.0
3	116	193	85	970	135	418	283	105	23	17	4.8	7.2
4	66	134	80	853	115	302	157	66	21	10	4.8	7.3
5	32	103	80	287	100	291	111	60	21	9.0	4.8	6.4
6	34	96	82	150	80	336	168	64	22	11	5.3	5.9
7	18	82	100	269	75	336	216	57	17	8.1	5.0	5.4
8	12	66	170	878	70	1,060	266	52	21	8.4	5.4	5.8
9	18	55	248	1,300	80	796	336	43	23	7.7	5.3	5.3
10	9.0	52	147	658	93	556	284	38	28	7.2	5.6	5.2
11	8.4	77	147	318	80	266	232	34	71	7.5	4.8	5.4
12	7.9	88	137	1,130	270	252	193	32	46	7.3	4.4	5.3
13	12	62	435	954	1,310	232	144	33	35	9.0	4.8	5.0
14	9.3	38	556	1,720	549	313	168	30	27	50	5.6	5.4
15	13	187	581	1,230	213	204	170	42	17	21	5.0	6.4
16	9.6	170	440	740	150	193	685	49	15	15	4.7	7.3
17	8.4	123	297	229	120	187	658	48	29	9.6	5.9	11
18	9.0	1,300	1,100	105	111	170	1,230	40	25	8.4	5.0	8.4
19	7.9	1,490	927	95	170	219	970	49	64	7.9	5.2	5.6
20	8.7	460	298	85	201	242	712	54	34	7.0	4.7	5.4
21	11	126	210	80	204	198	508	46	24	6.4	5.3	5.4
22	9.6	100	170	77	226	170	418	43	16	7.3	5.3	4.8
23	125	94	155	75	556	134	336	38	12	9.6	6.2	4.4
24	77	91	140	73	970	120	276	38	16	7.9	7.5	4.4
25	66	90	130	70	740	232	242	42	12	6.6	6.0	5.2
26	73	89	125	68	712	170	107	44	11	6.6	5.3	4.8
27	52	90	123	65	556	147	132	42	13	7.0	5.8	5.3
28	44	100	127	63	712	116	101	44	12	5.4	5.4	6.0
29	28	140	154	61	-------	101	134	48	12	6.6	5.8	6.0
30	24	120	170	60	-------	147	144	36	8.7	7.0	5.4	5.2
31	33	-------	137	60	-------	198	-------	24	-------	6.0	5.3	-------
1930-31												
1	4.6	5.2	85	5	65	54	226	101	73	10	6.0	5.3
2	4.4	4.8	65	6	40	48	682	80	52	8.7	7.3	8.1
3	4.6	5.2	45	7	31	44	758	75	43	7.5	10	48
4	4.6	4.8	28	11	28	42	532	67	37	7.2	10	22
5	6.4	5.3	25	15	30	34	485	57	33	6.4	6.2	10
6	5.8	5.9	23	80	30	33	252	50	29	8.4	5.9	9.0
7	5.4	6.4	60	65	33	30	137	54	67	9.6	5.9	7.7
8	5.9	5.8	67	40	92	33	111	630	331	8.7	5.9	6.8
9	6.0	5.4	55	60	96	32	88	359	178	7.9	5.8	7.3
10	5.4	5.8	40	25	71	32	103	198	86	6.8	6.0	6.2
11	5.2	5.3	28	23	59	28	134	137	44	6.8	7.9	7.0
12	5.2	5.9	30	22	43	42	88	107	32	6.6	11	7.3
13	4.8	5.8	34	20	78	44	82	152	25	6.4	7.5	6.0
14	4.8	5.6	24	14	213	48	62	173	27	6.6	6.8	5.9
15	4.7	5.3	18	12	298	42	52	152	27	6.6	7.3	6.0
16	4.7	8.4	13	11	291	78	44	95	24	7.9	6.8	5.9
17	4.8	9.3	10	11	140	125	42	423	21	6.8	5.9	6.0
18	4.6	9.6	8	12	876	140	43	298	14	12	5.9	5.8
19	4.7	9.0	7	15	259	204	34	574	11	13	11	5.9
20	5.2	8.1	6	25	204	176	32	266	13	8.4	6.6	6.0
21	5.0	8.4	5.5	50	181	235	30	198	9.6	7.9	6.4	5.3
22	5.0	7.5	5.5	40	140	219	348	147	8.1	15	5.6	5.9
23	6.0	6.6	5	30	116	160	317	768	12	49	5.6	5.6
24	6.4	6.0	4.5	28	77	140	184	632	17	23	6.2	5.9
25	6.4	7.0	4.5	25	67	150	111	302	9.6	11	5.8	6.4
26	6.6	6.0	6	160	66	157	144	190	49	7.9	5.9	7.0
27	6.8	6.0	7	110	66	150	270	123	49	7.2	9.6	8.7
28	6.4	5.0	6	70	55	170	287	90	29	5.8	13	8.1
29	6.0	5.0	6	60	-------	366	216	75	20	6.0	7.9	7.3
30	5.6	5.0	5.5	60	-------	248	150	62	17	6.4	6.8	7.2
31	5.6	-------	5	65	-------	157	-------	94	-------	6.4	5.9	-------

Daily discharge, in second-feet, of Little Shenango River at Greenville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	7.9	7.7	67	526	237	67	376	201	22	18	8.4	8.7
2	8.1	7.9	84	944	193	62	418	134	25	148	8.7	7.9
3	5.6	7.3	46	648	229	59	256	101	52	62	24	6.8
4	5.6	7.3	60	356	284	57	168	77	38	80	40	7.0
5	6.4	6.6	123	302	291	60	134	86	27	80	17	7.9
6	5.4	8.1	90	641	229	66	109	88	18	52	12	9.3
7	7.3	9.3	82	632	196	57	96	356	14	30	14	7.0
8	7.2	10	84	462	259	51	107	1,130	12	73	8.7	8.4
9	7.2	12	44	213	210	47	154	820	12	34	9.3	6.2
10	7.7	10	98	137	204	44	356	462	11	27	9.6	5.4
11	6.2	11	101	144	336	42	284	418	10	18	9.3	5.8
12	6.2	11	302	154	376	41	336	276	12	17	9.0	5.8
13	6.2	12	306	137	216	40	310	187	10	12	8.4	4.7
14	8.4	41	812	127	142	40	280	142	12	9.3	7.5	6.8
15	8.1	44	740	814	109	40	317	120	10	9.6	7.2	7.2
16	7.3	28	368	1,070	90	41	201	103	9.6	9.6	6.8	6.8
17	8.4	22	157	698	142	50	152	92	11	8.7	6.4	5.6
18	46	18	120	1,360	152	63	120	92	10	8.1	7.5	4.7
19	53	21	98	638	103	95	103	69	9.3	7.9	7.7	5.6
20	29	50	92	328	94	229	82	52	8.1	7.7	9.3	5.3
21	15	71	120	235	84	190	77	49	44	7.7	9.3	5.4
22	9.0	77	127	793	103	896	66	42	40	12	6.8	4.8
23	8.7	62	511	853	94	758	55	38	22	17	6.8	5.0
24	8.1	52	322	685	82	485	50	36	16	11	7.0	6.4
25	7.9	109	287	355	101	263	50	33	10	7.9	7.0	6.6
26	7.0	73	242	252	88	223	52	43	15	7.7	6.6	5.8
27	7.0	48	134	541	94	223	194	36	20	12	5.6	6.8
28	7.7	46	123	378	86	152	142	46	55	10	6.8	8.1
29	6.8	50	118	252	82	123	90	48	29	27	7.3	17
30	6.8	44	103	845	-------	96	123	28	17	15	20	25
31	7.9	-------	94	525	-------	280	-------	24	-------	13	24	------

Note.—Discharge estimated for periods of ice effect, Dec. 12, 19, 20, 22, 26-31, 1928, Jan. 1-4, 8, 13-17, Jan. 29 to Feb. 25, Mar. 7-9, Nov. 22, Nov. 24 to Dec. 7, Dec. 21-26, 1929, Jan. 18 to Feb. 11, Feb. 16, 17, Nov. 26 to Dec. 7, Dec. 15-31, 1930, Jan. 1 to Feb. 3, 1931, Mar. 8-19, 1932. Discharge estimated for periods of missing or unsatisfactory gage-height record, Nov. 20-25, 28, 29, 1928.

Monthly discharge, in second-feet, of Little Shenango River at Greenville, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	115	10	34.9	0.326	0.38
November	360	42	133	1.24	1.38
December	900	50	145	1.36	1.57
January	2,070	42	278	2.60	3.00
February	2,070	22	175	1.64	1.71
March	960	131	401	3.75	4.32
April	1,630	153	460	4.30	4.80
May	2,350	110	511	4.78	5.51
June	115	36	58.3	.545	.61
July	316	20	72.3	.676	.78
August	27	6.2	13.7	.128	.15
September	25	7.9	11.8	.110	.12
The year	2,350	6.2	191	1.79	24.33
1929-30					
October	125	6.8	30.9	.289	.33
November	1,490	52	205	1.94	2.14
December	1,100	86	250	2.34	2.70
January	1,720	60	448	4.19	4.83
February	1,310	70	313	2.93	3.05
March	1,060	101	294	2.75	3.17
April	1,230	101	335	3.13	3.49
May	229	24	56.7	.530	.61
June	71	8.7	24.0	.224	.25
July	50	5.4	10.5	.098	.11
August	7.5	4.4	5.33	.050	.06
September	11	4.4	5.90	.055	.06
The year	1,720	4.4	164	1.53	20.80
1930-31					
October	6.8	4.4	5.41	.051	.06
November	9.6	4.8	6.31	.059	.07
December	85	4.5	23.6	.221	.25
January	160	5	38.0	.355	.41
February	376	28	116	1.08	1.12
March	366	30	112	1.05	1.21
April	758	30	201	1.88	2.10
May	768	50	217	2.08	2.34
June	331	8.1	46.2	.432	.48
July	49	5.8	9.93	.093	.11
August	13	5.6	7.24	.068	.08
September	48	5.3	8.65	.081	.09
The year	768	4.4	65.6	.613	8.32
1931-32					
October	53	5.4	10.9	.102	.12
November	109	6.6	32.5	.304	.34
December	812	44	195	1.82	2.10
January	1,360	127	518	4.84	5.58
February	376	82	169	1.58	1.70
March	896	40	159	1.49	1.72
April	418	50	175	1.64	1.83
May	1,130	24	175	1.64	1.89
June	55	8.1	20.0	.187	.21
July	148	7 7	27.5	.257	.30
August	40	5.6	10.9	.102	.12
September	25	4.7	7.46	.070	.08
The year	1,360	4.7	126	1.18	15.99

PYMATUNING CREEK NEAR ORANGEVILLE

LOCATION.—Chain gage at highway bridge 1¾ miles upstream from confluence with Shenango River and 3 miles (revised) southeast of Orangeville, Mercer County.

DRAINAGE AREA.—170 square miles.

RECORDS AVAILABLE.—January, 1914, to August, 1923; November, 1925, to September, 1932.

EXTREMES.—Maximum gage height during year ending Sept. 30, 1929 (estimated from hydrograph), 8.6 feet Apr. 5 (discharge not determined); minimum discharge, 2.6 second-feet Oct. 13 (gage height, 0.61 foot).

Maximum discharge during year ending Sept. 30, 1930, 2,820 second-feet Jan. 14 (gage height, 7.51 feet); minimum, 1.4 second-feet Aug. 12, 14, 16, 20 (gage height, 0.55 foot).

Maximum discharge during year ending Sept. 30, 1931, 1,170 second-feet Apr. 4 (gage height, 5.05 feet); minimum, 2.9 second-feet Oct. 5, July 5 (gage height, 0.62 foot).

Maximum discharge during year ending Sept. 30, 1932, 1,910 second-feet Jan. 15 (gage height, 6.3 feet from graph based on gage readings); minimum, 1.2 second-feet Sept. 25, 26 (gage height, 0.53 foot).

1914-1923, 1925-1932: Maximum gage height (estimated from hydrograph), 8.9 feet Mar. 13, 1920 (discharge not determined); minimum discharge, that of Sept. 25, 26, 1932.

REMARKS.—Records poor. Diurnal regulation from operation of mills above station.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	4.4	62	1,370	81	194	1,720	1,140	566	65	57	52	6.1
2	5.2	65	1,650	77	124	950	846	481	50	39	23	5.6
3	6.1	60	1,280	83	87	686	781	1,840	44	27	13	10
4	9.5	51	880	73	79	625	686	1,910	39	27	14	6.1
5	5.6	54	655	69	65	595	2,900	1,720	44	147	14	6.1
6	4.8	51	481	107	57	625	2,820	1,280	33	147	13	7.2
7	6.1	47	268	218	62	595	1,600	987	33	136	12	6.1
8	7.2	43	213	170	65	509	800	686	32	136	10	8.8
9	18	44	182	140	63	481	600	509	30	118	13	18
10	6.5	39	206	194	62	333	600	359	34	158	18	12
11	4.8	35	147	170	48	307	600	281	34	182	8.8	10
12	5.6	44	116	147	42	230	600	243	32	147	7.2	7.9
13	3.1	89	75	109	36	256	550	294	31	158	7.2	20
14	4.8	147	81	85	32	453	500	509	39	194	6.1	20
15	4.8	147	170	65	30	717	460	914	38	256	8.8	24
16	6.5	158	218	55	28	1,370	650	1,180	39	320	10	23
17	13	158	256	48	26	1,720	500	1,020	38	294	7.2	27
18	26	158	481	100	26	1,140	400	846	34	218	5.2	28
19	36	256	481	1,840	24	813	400	950	32	147	6.1	36
20	42	372	370	3,420	24	717	400	655	32	101	5.6	32
21	39	453	270	2,340	24	625	1,300	1,280	32	79	4.8	18
22	40	481	210	1,320	24	987	1,100	987	28	17	6.1	15
23	52	537	170	914	24	1,530	900	717	15	10	10	15
24	40	566	140	717	26	1,420	600	595	13	27	12	11
25	40	566	110	950	36	1,140	500	453	27	32	18	9.5
26	47	537	95	846	1,590	1,650	1,100	281	35	13	32	13
27	63	481	79	686	2,820	1,590	537	206	19	24	28	9.5
28	79	453	73	665	2,660	1,140	453	147	44	52	22	8.8
29	75	509	65	595	-------	717	595	122	47	124	9.5	8.8
30	71	914	77	399	-------	537	566	101	58	147	8.8	11
31	63	-------	54	256	-------	426	-------	77	-------	101	12	-------

Daily discharge, in second-feet, of Pymatuning Creek near Orangeville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	8.0	50	130	186	70	729	386	122	16	13	7.4	4.4
2	11	103	115	732	65	662	503	72	12	12	5.4	4.7
3	27	155	105	1,380	80	503	473	55	13	10	4.4	4.0
4	24	135	100	1,270	120	414	414	36	12	9.4	3.3	2.9
5	23	112	95	1,120	140	333	272	32	12	7.4	3.3	2.6
6	17	102	95	763	120	333	215	34	14	6.3	6.3	4.4
7	19	80	110	630	105	461	215	32	12	8.4	5.8	5.1
8	17	68	366	950	100	950	296	36	12	12	2.9	6.8
9	20	48	427	1,380	90	1,220	443	28	10	10	3.3	5.8
10	11	40	427	1,540	85	950	473	27	16	7.9	2.9	7.9
11	10	51	354	1,320	80	763	443	21	38	5.4	2.0	8.4
12	17	73	421	1,660	90	629	359	24	34	4.7	1.8	5.8
13	11	84	835	2,260	260	443	248	21	31	9.4	1.9	4.4
14	12	109	630	2,740	500	333	180	29	25	13	1.6	2.9
15	11	155	567	2,420	800	260	121	21	17	10	1.9	4.4
16	18	180	427	1,660	750	226	266	24	18	4.4	1.6	7.9
17	6.9	210	480	821	540	204	763	25	23	17	1.9	7.9
18	12	1,180	817	534	300	204	1,080	26	30	24	2.2	6.8
19	11	1,840	1,380	386	220	204	990	38	52	20	1.9	9.4
20	6.5	1,780	1,220	320	190	204	662	44	44	11	1.6	8.4
21	13	1,270	695	272	237	189	503	41	42	12	3.6	5.4
22	27	871	508	226	248	172	320	34	42	10	5.4	4.4
23	21	567	380	190	248	138	226	31	37	9.4	2.2	3.6
24	35	427	300	165	260	122	136	27	35	10	1.9	7.4
25	68	402	200	150	473	134	95	19	29	14	2.0	12
26	103	354	145	135	695	324	88	19	25	6.8	2.2	17
27	94	261	126	120	871	359	80	21	22	7.9	2.2	13
28	62	206	135	105	910	359	75	17	18	7.4	1.9	7.4
29	57	165	145	90	-------	400	70	20	7.4	8.9	2.0	5.4
30	44	145	126	80	-------	414	55	19	10	10	2.6	12
31	33	-------	135	75	-------	400	-------	17	-------	10	2.9	-------
1930-31												
1	15	18	80	14	150	76	529	284	64	10	4.7	4.4
2	10	27	120	13	125	73	695	185	56	10	7.4	8.9
3	12	27	110	14	105	67	871	113	56	8.9	7.4	14
4	6.8	25	113	13	85	48	1,170	81	48	5.8	5.4	17
5	3.3	25	110	20	70	42	990	65	47	3.3	5.8	13
6	5.4	23	134	70	56	40	662	56	40	6.8	6.8	10
7	6.8	17	170	150	72	35	473	56	43	8.9	6.3	9.4
8	7.9	10	185	130	86	31	333	438	83	12	4.7	7.9
9	19	9.4	182	120	102	40	260	400	86	10	6.3	6.3
10	24	10	182	120	90	33	162	428	90	8.4	6.8	5.4
11	12	8.4	187	100	80	27	104	443	90	10	7.9	5.1
12	8.4	9.4	168	75	75	25	86	428	73	8.9	7.4	4.4
13	13	20	113	60	110	27	70	414	62	7.4	5.4	4.7
14	13	13	78	45	204	38	56	372	37	7.4	4.7	4.7
15	14	8.9	65	35	248	59	49	296	29	9.4	6.3	4.4
16	17	8.4	55	30	215	104	43	237	25	7.4	8.4	4.0
17	16	17	43	28	237	148	37	215	25	5.4	7.4	4.7
18	7.4	28	32	30	308	182	33	193	22	9.4	8.4	4.0
19	6.3	21	32	35	346	237	29	359	19	7.4	10	4.0
20	5.1	18	15	45	333	284	25	272	18	8.4	9.4	4.7
21	5.8	20	14	50	308	320	24	226	14	7.4	9.4	4.7
22	8.4	25	13	45	272	320	43	201	17	7.9	8.4	4.7
23	7.4	24	12	45	226	284	239	622	14	12	7.9	5.1
24	7.4	20	11	48	204	260	248	597	14	11	5.1	7.4
25	7.4	20	10	60	193	260	272	473	12	8.4	5.4	5.8
26	5.4	17	11	90	119	284	473	400	14	6.3	7.4	5.1
27	5.4	13	10	150	97	260	565	296	13	7.4	7.9	4.7
28	8.9	10	9	210	86	320	503	226	10	6.3	5.4	4.0
29	8.4	10	9	250	-------	346	473	115	8.4	5.4	5.1	5.4
30	7.4	25	15	220	-------	346	414	62	9.4	7.4	5.4	5.1
31	10	-------	15	190	-------	346	-------	67	-------	6.3	4.0	-------

Daily discharge, in second-feet, of Pymatuning Creek near Orangeville, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	5.4	10	52	276	565	56	215	113	20	47	8.4	2.0
2	4.7	9.4	55	534	473	49	260	115	17	54	7.4	2.9
3	4.7	14	47	565	443	47	260	100	19	51	9.4	2.6
4	5.8	20	52	534	414	52	226	86	16	86	8.4	3.3
5	4.7	24	64	518	333	49	193	76	16	83	6.3	2.6
6	5.4	24	73	825	284	47	162	113	14	73	7.4	2.6
7	4.7	23	76	597	272	44	124	168	13	72	8.4	2.9
8	5.4	18	70	503	320	38	111	322	12	75	8.4	2.0
9	4.7	16	72	443	320	33	226	629	9.4	62	7.4	2.0
10	4.4	19	70	346	346	29	400	1,040	9.4	48	8.4	2.0
11	3.6	22	115	248	372	26	443	1,170	8.4	35	7.4	2.0
12	4.4	17	162	162	443	25	503	950	10	27	8.4	2.0
13	3.6	22	268	130	359	25	503	834	10	15	7.4	1.9
14	3.3	26	452	113	333	25	534	629	9.4	13	5.4	2.0
15	4.0	32	443	857	272	25	473	503	10	14	5.4	2.0
16	3.3	40	386	754	215	27	400	346	8.4	13	4.7	2.0
17	10	40	359	1,090	172	38	372	204	9.4	12	5.4	1.8
18	21	40	272	1,720	148	80	284	154	8.4	10	6.3	1.8
19	29	47	193	1,840	113	134	204	85	8.4	8.4	5.4	1.6
20	35	52	182	1,100	97	168	148	54	7.4	8.4	4.7	1.6
21	35	49	113	798	88	182	93	38	10	9.4	6.3	1.4
22	33	52	186	910	78	596	62	31	14	12	5.4	1.6
23	28	52	284	990	67	503	44	26	13	9.4	4.7	3.6
24	20	47	320	990	64	597	37	22	12	8.4	5.1	1.9
25	15	52	359	910	52	662	33	17	14	8.9	2.6	1.3
26	12	64	372	729	44	662	43	20	14	9.4	2.6	1.3
27	8.9	58	308	798	52	565	95	25	17	12	2.0	1.9
28	8.9	52	260	565	62	414	119	27	24	10	2.6	2.9
29	7.9	55	204	473	64	215	85	24	22	10	2.2	2.2
30	6.3	55	132	864	-------	160	95	22	25	8.4	2.6	3.6
31	8.4	-------	104	662	-------	170	-------	22	-------	8.4	2.0	-------

Note.—Discharge estimated for periods of ice effect, Dec. 20-26, 1928, Jan. 8, 9, 14-18, Feb. 5, 11-25, Nov. 30 to Dec. 7, Dec. 23-25, 1929, Jan. 23 to Feb. 20, Nov. 27 to Dec. 5, Dec. 16-31, 1930, Jan. 1 to Feb. 5, Feb. 10-13, 1931, Mar. 11-17, 1932. Discharge estimated for period of missing gage-height record, Apr. 7-26, 1929.

Monthly discharge, in second-feet, of Pymatuning Creek near Orangeville, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	79	3.1	26.7	0.157	0.18
November	914	35	253	1.49	1.66
December	1,650	54	353	2.08	2.40
January	3,420	69	546	3.21	3.70
February	2,820	24	299	1.76	1.83
March	1,720	230	858	5.05	5.82
April	2,900	400	849	4.99	5.57
May	1,910	77	716	4.21	4.85
June	65	13	35.7	.210	.23
July	320	10	117	.688	.79
August	52	4.8	13.5	.079	.09
September	36	5.6	14.4	.085	.09
The year	3,420	3.1	341	2.01	27.21
1929-30					
October	103	6.5	27.4	.161	.19
November	1,840	40	374	2.20	2.46
December	1,380	95	387	2.28	2.63
January	2,740	75	828	4.87	5.62
February	910	65	309	1.82	1.90
March	1,220	122	421	2.48	2.86
April	1,080	55	348	2.05	2.29
May	122	17	32.5	.191	.22
June	52	7.4	23.6	.139	.16
July	24	4.4	10.4	.061	.07
August	7.4	1.6	2.98	.018	.02
September	17	2.6	6.75	.040	.04
The year	2,740	1.6	231	1.36	18.46
1930-31					
October	24	3.3	9.82	.058	.07
November	28	8.4	17.6	.104	.12
December	187	9	74.0	.435	.50
January	250	13	80.8	.475	.55
February	346	56	164	.965	1.00
March	346	25	160	.941	1.08
April	1,170	24	331	1.95	2.18
May	622	56	278	1.64	1.89
June	90	8.4	38.0	.224	.25
July	12	3.3	8.10	.048	.06
August	10	4.0	6.72	.040	.05
September	17	4.0	6.43	.038	.04
The year	1,170	3.3	97.4	.573	7.79
1931-32					
October	35	3.3	11.3	.066	.08
November	64	9.4	35.0	.206	.23
December	452	47	197	1.16	1.34
January	1,840	113	705	4.15	4.78
February	565	44	237	1.39	1.54
March	662	25	185	1.09	1.26
April	534	33	225	1.32	1.47
May	1,170	17	257	1.51	1.74
June	25	7.4	13.4	.079	.09
July	86	8.4	29.5	.174	.20
August	9.4	2.0	5.76	.034	.04
September	3.6	1.3	2.18	.013	.01
The year	1,840	1.3	159	.935	12.74

CONNOQUENESSING CREEK AT HAZEN*

LOCATION.—Chain gage at highway bridge at Hazen, Beaver County, half a mile upstream from mouth of Brush Creek.

DRAINAGE AREA.—355 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1932.

EXTREMES.—Maximum gage height during year ending Sept. 30, 1929, 11.80 feet Feb. 26 (discharge not determined); minimum discharge, 14 second-feet Sept. 5 (gage height, 1.06 feet).

Maximum discharge during year ending Sept. 30, 1930, not determined; minimum, 7.8 second-feet Sept. 25 (gage height, 0.92 foot).

Maximum discharge during year ending Sept. 30, 1931, 4,480 second-feet Apr. 4 (gage height, 7.35 feet from graph based on gage readings); minimum, 7.8 second-feet Oct. 6 (gage height, 0.92 foot).

Maximum discharge during year ending Sept. 30, 1932, 4,780 second-feet Jan. 23 (gage height, 7.7 feet from graph based on gage readings); minimum, 6.6 second-feet Sept. 12 (gage height, 0.84 foot).

1915-1932: Maximum gage height, 16.66 feet June 29, 1924 (discharge not determined); minimum discharge, that of Sept. 12, 1932.

REMARKS.—Records poor. Some regulation from mill operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	26	41	1,410	130	275	1,250	693	693	204	88	33	16
2	27	40	906	180	220	1,170	660	1,100	164	67	29	16
3	28	53	693	180	180	798	595	2,720	142	56	28	16
4	27	58	418	140	140	1,020	595	2,560	130	47	32	14
5	27	67	446	120	120	1,410	3,690	2,310	111	209	33	14
6	28	55	564	140	120	2,060	4,150	1,890	100	314	30	18
7	26	47	418	300	120	2,060	1,740	1,570	90	175	28	66
8	25	49	364	360	140	1,410	1,250	1,250	84	564	24	48
9	25	53	324	260	180	798	1,100	870	79	595	22	67
10	24	58	227	240	160	475	1,410	628	67	1,100	22	48
11	23	58	231	300	140	475	1,170	504	60	1,020	22	38
12	22	58	204	260	110	418	1,100	418	56	446	32	30
13	22	64	179	220	100	504	1,020	504	53	314	35	35
14	24	62	251	140	100	1,250	834	1,740	56	391	33	68
15	24	66	628	110	100	1,570	942	2,380	97	200	30	72
16	25	62	475	110	110	2,060	1,890	1,890	62	127	26	72
17	29	64	564	120	120	1,490	2,560	1,100	51	90	22	100
18	62	61	1,410	2,220	110	1,100	1,890	870	40	72	19	149
19	213	93	1,020	1,650	95	870	1,250	1,020	38	64	18	68
20	84	504	798	1,340	90	762	1,170	1,170	37	54	16	54
21	58	418	533	981	80	693	981	1,570	33	45	16	45
22	45	418	475	660	70	762	1,250	1,250	32	38	18	36
23	51	364	418	870	65	906	906	942	28	37	24	30
24	47	309	364	798	90	1,020	798	798	25	33	30	28
25	45	246	300	1,410	260	942	870	693	314	32	26	25
26	53	227	240	1,410	7,730	1,020	1,570	475	241	83	24	23
27	56	196	200	981	5,480	1,340	1,100	391	81	84	21	22
28	58	200	160	762	1,820	1,020	1,020	359	133	62	18	23
29	53	241	140	533	-------	906	981	329	354	48	16	30
30	50	533	120	364	-------	906	834	309	114	38	15	149
31	47	-------	120	299	-------	693	-------	270	-------	37	16	-------

*Formerly published as Connoquenessing Creek near Hazen.

Daily discharge, in second-feet, of Connoquenessing Creek at Hazen, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	66	162	310	448	120	2,590	502	179	68	52	14	11
2	460	251	299	1,770	140	1,960	694	176	62	45	13	10
3	4,260	596	270	2,770	200	1,160	596	154	54	40	13	9.4
4	1,600	694	260	1,880	300	901	533	132	46	41	12	10
5	978	596	250	1,160	270	978	443	108	41	36	9.8	11
6	414	414	250	830	220	1,080	414	138	43	32	11	11
7	299	386	300	727	190	1,320	414	172	49	28	10	10
8	227	303	761	937	160	3,500	661	138	48	25	9.8	10
9	202	231	1,080	1,640	150	2,680	472	113	52	23	10	11
10	176	202	694	1,480	150	2,050	414	104	1,420	22	10	11
11	138	206	443	1,240	150	1,080	359	76	2,130	21	11	11
12	110	183	339	2,530	150	1,080	318	64	944	20	11	10
13	92	186	818	4,480	900	950	308	71	443	21	11	11
14	113	611	2,590	3,310	1,200	865	289	97	299	21	11	11
15	88	1,320	1,640	2,410	1,090	727	244	115	244	35	10	9.8
16	87	1,240	1,080	2,140	800	628	252	132	210	28	10	11
17	83	1,760	1,010	1,720	650	628	344	148	195	23	11	11
18	71	4,900	2,680	1,000	500	661	516	124	168	19	10	9.8
19	64	3,310	1,720	414	400	596	901	306	148	17	11	11
20	55	2,230	1,560	330	350	533	761	1,080	127	16	11	9.8
21	77	1,160	1,010	260	299	472	564	865	97	15	11	9.8
22	170	865	761	220	252	414	472	533	85	16	12	9.4
23	884	661	564	200	280	359	414	261	72	24	11	9.0
24	443	533	472	180	918	318	386	218	66	34	11	9.0
25	359	472	386	170	6,780	313	923	141	76	30	12	8.2
26	313	414	344	160	6,800	502	280	115	138	22	14	9.0
27	280	386	318	150	5,000	414	235	101	110	30	13	24
28	244	386	354	140	3,500	359	218	97	72	25	12	20
29	158	370	359	130	-------	533	206	94	65	19	11	19
30	132	350	344	130	-------	661	191	94	59	18	11	15
31	148	-------	334	130	-------	533	-------	81	-------	15	11	-------
1930-31												
1	11	14	15	12	16	113	904	356	218	139	28	39
2	10	14	17	12	16	108	2,410	274	168	443	25	296
3	9.8	14	17	11	16	104	3,490	241	128	483	158	1,300
4	9.0	14	16	11	16	99	3,880	226	106	174	62	343
5	8.2	13	15	12	16	83	2,190	199	94	120	43	164
6	8.2	12	28	18	16	71	1,300	164	94	92	32	120
7	9.0	11	100	20	18	60	791	260	1,720	85	26	78
8	9.0	11	85	18	22	60	596	809	2,020	78	24	62
9	11	11	54	17	22	59	507	758	1,070	64	23	53
10	14	12	42	16	20	58	417	628	659	56	49	46
11	12	13	34	15	18	55	507	566	396	56	182	44
12	11	13	30	14	18	59	450	478	282	58	155	40
13	11	14	24	14	142	45	396	826	229	53	78	33
14	10	14	22	13	716	70	336	1,370	203	46	40	27
15	11	14	19	13	359	227	313	1,140	356	37	30	26
16	11	15	16	13	235	214	287	895	417	33	26	30
17	11	14	15	13	248	180	262	826	375	31	96	90
18	12	13	15	13	443	170	233	596	313	42	25	76
19	13	13	14	14	596	222	214	596	241	92	38	62
20	14	13	14	18	564	218	174	758	168	70	39	46
21	13	12	14	20	472	206	136	566	139	398	32	233
22	11	11	13	19	386	191	153	507	122	652	26	171
23	11	10	13	17	533	176	386	507	230	252	21	65
24	11	10	13	16	472	162	422	692	664	130	19	48
25	11	9	13	17	386	257	450	628	261	70	23	50
26	11	10	12	22	323	443	478	596	1,010	62	58	191
27	13	10	12	26	270	386	692	478	916	50	50	171
28	13	11	12	25	168	516	596	422	332	42	42	104
29	14	12	12	22	-------	1,620	536	300	270	35	32	69
30	14	13	12	20	-------	1,080	450	237	192	33	27	54
31	14	-------	12	18	-------	727	-------	226	-------	33	22	-------

Daily discharge, in second-feet, of Connoquenessing Creek at Hazen, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	48	32	309	3,500	1,070	171	1,610	196	56	38	31	19
2	40	30	210	2,980	930	145	1,530	164	50	39	26	22
3	37	28	161	2,280	965	130	1,370	136	49	97	33	33
4	35	27	171	1,530	965	148	1,000	128	52	78	39	28
5	32	29	278	1,070	826	178	826	122	62	109	30	20
6	54	30	196	1,770	628	296	628	111	42	67	23	18
7	53	28	171	1,610	566	218	536	92	35	114	21	15
8	36	27	142	1,450	536	190	596	117	30	534	21	14
9	37	29	152	1,090	478	175	1,140	196	26	147	19	12
10	34	27	174	758	478	165	860	1,040	25	76	23	10
11	33	26	322	596	536	162	596	1,610	26	43	99	8.0
12	42	28	375	478	478	159	965	1,220	26	34	58	6.9
13	35	32	1,470	422	417	156	895	1,040	25	28	26	7.6
14	32	35	1,160	313	360	153	826	724	25	23	19	14
15	35	38	2,100	1,090	300	150	758	507	27	24	16	297
16	40	36	1,220	1,610	332	150	692	365	31	23	15	50
17	50	37	930	1,570	401	165	596	304	69	20	12	23
18	85	39	628	3,630	412	195	478	258	68	19	15	14
19	78	43	478	2,280	346	229	396	192	44	18	15	12
20	67	46	422	1,370	296	291	304	155	78	18	12	10
21	54	49	360	1,050	249	372	266	122	203	16	13	9.0
22	45	58	636	2,440	223	2,350	237	114	122	74	14	8.3
23	38	58	1,370	3,720	226	1,720	226	104	67	92	11	15
24	37	58	1,500	3,530	207	1,070	214	97	40	35	10	29
25	37	62	2,620	2,020	196	860	214	92	26	27	10	11
26	38	64	1,370	1,140	192	692	278	85	22	19	11	11
27	35	60	930	1,070	188	659	300	81	26	19	10	9.5
28	36	70	758	1,000	182	692	262	78	96	18	10	9.0
29	34	79	507	1,030	182	860	233	74	65	162	9.5	10
30	33	171	420	2,430	-------	724	214	76	42	136	11	12
31	33	-------	666	1,850	-------	891	-------	69	-------	61	12	-------

Note.—Discharge estimated for periods of ice effect, Dec. 25–31, 1928, Jan. 1–17, Feb. 2–25, Nov. 29 to Dec. 7, 1929, Jan. 20 to Feb. 20, Nov. 23 to Dec. 7, Dec. 16–31, 1930, Jan. 1 to Feb. 12, 1931, Mar. 8–18, 1932. Discharge estimated for periods of missing gage-height record. Aug. 25, 1929, Jan. 18, Feb. 26–28, Mar. 13, Oct. 30 to Nov. 4, 1930, Mar. 17, 18, Sept. 23, Dec. 30, 1931.

Monthly discharge, in second-feet, of Connoquenessing Creek at Hazen, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	213	22	43.7	0.123	0.14
November	533	40	159	.448	.50
December	1,410	120	471	1.33	1.53
January	2,220	110	567	1.60	1.84
February	7,730	65	654	1.84	1.92
March	2,060	418	1,070	3.01	3.47
April	4,150	595	1,330	3.75	4.18
May	2,720	270	1,120	3.15	3.63
June	354	25	103	.290	.32
July	1,100	32	211	.594	.68
August	35	15	24.5	.069	.08
September	149	14	47.3	.133	.15
The year	7,730	14	483	1.36	18.44
1929-30					
October	4,260	55	413	1.16	1.34
November	4,900	162	846	2.38	2.66
December	2,680	250	761	2.14	2.47
January	4,480	130	1,130	3.18	3.67
February	6,800	120	1,140	3.21	3.34
March	3,500	313	995	2.80	3.23
April	901	191	424	1.19	1.33
May	1,080	64	201	.566	.65
June	2,130	41	254	.715	.80
July	52	15	26.2	.074	.09
August	14	9.8	11.2	.032	.04
September	24	8.2	11.4	.032	.04
The year	6,800	8.2	514	1.45	19.66
1930-31					
October	14	8.2	11.3	.032	.04
November	15	9	12.3	.035	.04
December	100	12	23.5	.066	.08
January	26	11	16.4	.046	.05
February	716	16	233	.656	.68
March	1,620	45	259	.730	.84
April	3,880	136	799	2.25	2.51
May	1,370	164	552	1.55	1.79
June	2,020	94	446	1.26	1.41
July	652	31	129	.363	.42
August	182	19	46.9	.132	.15
September	1,300	26	138	.389	.43
The year	3,880	8.2	221	.623	8.44
1931-32					
October	85	32	42.7	.120	.14
November	171	26	45.9	.129	.14
December	3,160	142	781	2.20	2.54
January	3,630	313	1,700	4.79	5.52
February	1,070	182	454	1.28	1.38
March	2,350	130	468	1.32	1.52
April	1,610	214	635	1.79	2.00
May	1,610	69	312	.879	1.01
June	203	22	51.8	.146	.16
July	534	16	71.2	.201	.23
August	99	9.5	21.8	.061	.07
September	297	6.9	25.2	.071	.08
The year	3,630	6.9	385	1.08	14.79

SLIPPERY ROCK CREEK AT WURTEMBURG

LOCATION.—Chain gage at highway bridge at Wurtemburg, Lawrence County, 1 mile upstream from mouth. Zero of gage is 812.48 feet above mean sea level.

DRAINAGE AREA.—404 square miles.

RECORDS AVAILABLE.—October, 1922, to September, 1932. January, 1912, to September, 1922, at a site half a mile upstream.

EXTREMES.—Maximum gage height during year ending Sept. 30, 1929 (estimated), 9.9 feet Feb. 27 (discharge not determined); minimum discharge, 20 second-feet Sept. 6 (gage height, 1.94 feet).

Maximum discharge during year ending Sept. 30, 1930 (estimated), 7,400 second-feet Jan. 13 (gage height, 8.0 feet from graph based on gage readings); minimum, 20 second-feet Sept. 4, 6 (gage height, 1.93 feet).

Maximum discharge during year ending Sept. 30, 1931, 2,930 second-feet June 8 (gage height, 5.85 feet from graph based on gage readings); minimum, 22 second-feet Nov. 12 (gage height, 1.95 feet).

Maximum discharge during year ending Sept. 30, 1932, 5,630 second-feet Jan. 18 (gage height, 7.18 feet); minimum, 16 second-feet Sept. 13 (gage height, 1.88 feet).

1912-1932: Maximum gage height (estimated), 11.8 feet Dec. 14, 1927 (discharge not determined); minimum discharge, 11 second-feet Sept. 8, 1925.

REMARKS.—Records fair except those for high stages and for estimated periods, which are poor. Regulation from power operations upstream.

Daily discharge, in second-feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	82	60	2,620	150	260	1,410	1,510	1,320	260	181	95	48
2	90	90	1,510	180	200	1,230	1,510	976	223	147	78	33
3	78	130	1,140	110	160	769	890	4,160	213	127	65	32
4	78	320	769	110	130	730	849	3,250	181	108	72	38
5	74	260	693	130	130	1,320	8,120	2,920	155	976	82	37
6	84	150	587	190	120	1,230	8,690	2,480	163	1,410	84	22
7	84	80	461	400	130	1,410	2,920	1,730	187	976	76	53
8	82	70	378	300	130	1,830	1,620	1,320	160	1,510	70	40
9	80	70	302	260	150	1,410	1,510	890	150	1,830	65	200
10	65	80	281	320	160	1,070	2,080	656	127	3,600	58	137
11	62	80	256	260	150	808	2,080	522	122	4,160	65	84
12	60	206	249	220	120	769	1,620	587	115	1,950	74	65
13	60	326	234	160	110	1,230	1,140	522	115	976	60	42
14	60	378	234	130	110	1,730	849	976	187	730	62	70
15	62	220	730	120	110	2,340	849	3,080	152	432	54	103
16	60	206	693	110	110	2,080	1,510	2,480	132	260	48	90
17	100	220	693	130	130	1,620	1,950	1,410	110	213	47	260
18	280	227	1,830	1,620	120	1,320	1,410	976	108	181	52	693
19	750	351	1,620	3,970	100	1,230	976	1,830	110	169	46	169
20	500	1,620	1,140	2,620	80	1,140	808	1,830	92	144	37	117
21	160	1,410	976	1,230	75	1,140	2,080	1,950	86	117	41	86
22	90	976	404	808	65	1,730	2,480	1,950	80	110	50	53
23	80	890	351	976	60	1,830	1,410	1,070	76	101	60	42
24	120	769	281	890	70	1,950	1,830	976	80	92	65	68
25	200	693	281	1,620	110	1,510	808	890	281	92	62	64
26	600	587	281	1,620	5,660	1,730	1,950	693	242	190	62	60
27	600	378	210	1,410	10,700	1,830	1,510	461	210	137	50	58
28	600	492	230	1,140	3,250	1,620	1,070	378	213	99	42	60
29	220	622	160	492	-------	1,510	1,320	492	249	150	44	112
30	100	1,510	130	404	-------	1,320	1,230	461	249	260	46	95
31	70	-------	130	320	-------	1,140	-------	351	-------	142	64	-------

Daily discharge, in second-feet, of Slippery Rock Creek at Wurtemburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	89	398	250	1,140	140	1,420	513	347	165	91	45	36
2	681	612	250	2,090	140	1,280	1,110	282	153	86	44	27
3	3,380	838	220	3,250	320	1,050	1,050	235	139	80	39	44
4	2,800	684	220	1,850	270	838	720	221	131	76	37	22
5	1,260	483	240	1,100	230	720	546	214	128	73	32	28
6	584	398	320	647	210	838	453	214	116	67	31	37
7	327	302	493	573	200	418	578	210	118	97	31	59
8	228	231	1,180	1,150	180	2,620	1,140	204	114	104	33	74
9	181	197	1,280	2,850	170	2,090	963	178	108	80	30	65
10	153	197	578	2,500	160	1,320	838	168	361	69	31	41
11	145	398	453	1,460	150	1,630	758	162	1,600	63	33	35
12	116	302	324	2,550	150	1,740	546	153	910	54	32	26
13	118	327	1,840	5,900	800	1,180	483	151	398	60	30	76
14	139	877	2,310	5,450	1,500	1,280	453	156	231	80	30	54
15	145	1,520	1,320	2,800	838	963	372	193	184	76	29	35
16	124	1,140	963	1,400	398	758	372	221	171	63	32	30
17	111	1,250	1,100	720	324	684	684	207	184	71	31	51
18	116	4,740	2,510	560	324	1,140	797	200	210	62	29	31
19	114	4,530	3,090	400	282	920	920	504	190	57	33	27
20	99	2,740	2,490	350	372	838	684	2,090	162	54	45	30
21	69	1,420	1,740	310	347	647	513	1,480	137	52	37	30
22	86	920	920	280	372	483	578	762	121	51	35	33
23	596	483	647	250	324	426	546	453	104	59	32	28
24	475	483	647	220	423	426	483	347	93	44	36	29
25	462	398	578	200	1,810	513	426	324	148	62	34	27
26	483	347	426	190	4,530	758	372	257	151	59	30	54
27	282	360	347	175	2,760	684	302	224	139	59	25	71
28	204	400	347	160	1,740	546	282	239	116	57	28	37
29	168	320	347	150	-------	684	302	239	108	44	59	34
30	153	200	347	150	-------	720	302	174	95	44	62	30
31	204	-------	483	140	-------	647	-------	178	-------	41	39	-------
1930-31												
1	29	62	30	34	80	118	708	302	197	95	52	55
2	30	42	45	33	70	110	1,520	242	181	88	45	294
3	55	44	45	33	65	114	1,520	214	142	82	39	452
4	49	32	30	33	60	97	1,520	204	128	74	82	282
5	33	49	35	35	60	84	1,230	184	159	73	71	145
6	31	45	90	40	60	93	838	171	156	131	57	104
7	25	37	180	70	70	78	546	806	743	88	39	69
8	45	32	168	65	90	86	453	1,740	2,400	69	44	71
9	71	59	114	55	80	74	398	1,280	1,500	59	37	57
10	48	37	97	50	60	54	282	680	647	88	83	46
11	63	32	86	45	62	59	892	546	426	99	350	45
12	33	24	82	42	65	80	797	513	261	106	547	37
13	29	34	86	42	100	104	513	1,310	197	80	151	37
14	33	62	76	40	347	97	347	1,520	178	62	95	35
15	26	29	60	40	963	261	282	1,050	217	54	78	39
16	46	41	50	40	647	282	246	684	239	59	67	35
17	52	54	40	40	483	224	221	578	190	55	45	35
18	41	80	40	42	578	210	184	578	151	84	48	37
19	35	69	37	55	720	302	165	720	104	95	45	35
20	42	74	37	60	647	302	159	578	95	97	46	40
21	39	46	36	55	578	282	128	372	97	172	57	35
22	41	45	36	50	426	261	159	302	91	318	45	34
23	34	46	36	50	324	231	340	426	82	372	46	32
24	32	44	35	50	261	242	546	878	93	347	42	78
25	33	41	35	50	246	372	372	758	181	184	60	46
26	36	44	35	65	204	612	470	483	518	93	355	69
27	35	30	35	120	134	453	1,310	347	577	82	384	82
28	44	25	34	115	142	684	878	239	302	62	89	76
29	37	25	34	105	-------	1,320	578	210	168	54	44	74
30	33	25	34	100	-------	1,050	398	190	118	51	48	74
31	35	-------	34	90	-------	684	-------	184	-------	60	48	-------

Daily discharge, in second-feet, of Slippery Rock Creek at Wurtemburg, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	52	33	200	1,360	1,050	207	1,530	261	99	84	67	36
2	49	41	197	2,930	758	190	1,420	242	104	134	49	39
3	35	44	142	2,490	838	210	1,050	204	93	153	60	34
4	37	39	131	1,630	1,100	282	758	174	82	328	153	36
5	49	37	302	1,140	1,100	224	647	181	84	720	126	44
6	41	71	324	1,520	878	207	483	214	91	316	80	41
7	36	39	231	1,970	612	178	426	261	67	200	59	48
8	67	52	153	1,230	684	167	428	356	62	231	51	39
9	49	60	142	920	578	163	878	1,120	62	207	49	36
10	29	52	168	647	513	162	963	2,460	55	131	37	32
11	34	65	470	483	758	160	1,010	2,930	48	97	39	34
12	40	74	1,420	398	963	159	1,140	1,580	63	59	48	34
13	59	73	3,310	372	720	158	1,100	1,050	80	65	49	22
14	36	86	5,170	365	453	157	963	797	62	71	40	27
15	44	74	3,360	2,390	347	157	878	612	65	80	39	33
16	48	84	1,630	2,930	302	157	684	426	60	65	37	46
17	48	57	878	2,500	372	180	513	372	71	55	36	28
18	102	59	647	5,130	612	282	426	282	84	51	36	28
19	97	91	453	3,540	372	340	347	224	76	51	34	30
20	82	118	372	1,970	302	612	324	204	62	51	39	34
21	67	137	347	1,370	261	554	282	190	80	40	34	30
22	55	148	646	2,640	282	2,370	250	174	84	45	30	41
23	51	102	1,740	3,590	250	2,090	228	151	80	65	29	37
24	55	90	1,740	3,250	239	1,400	200	142	76	52	30	26
25	41	102	1,850	2,220	257	676	217	118	65	48	47	28
26	60	91	1,420	3,730	282	522	257	128	51	52	28	24
27	33	88	838	2,060	282	797	347	126	86	59	36	44
28	32	95	612	1,320	224	647	302	124	239	48	41	99
29	29	88	483	1,630	231	578	217	108	184	121	33	121
30	35	116	398	2,260	-------	453	210	102	116	142	34	93
31	51	-------	324	1,850	-------	569	-------	86	-------	102	37	-------

Note.—Discharge estimated for periods of ice effect, Dec. 30, 31, 1928, Jan. 1-17, Jan. 31 to Feb. 25, Nov. 27 to Dec. 6, 1929, Jan. 9 to Feb. 14, Nov. 28 to Dec. 7, Dec. 15-31, 1930, Jan. 1 to Feb. 13, 1931, Mar. 8-17, 1932, and for period of missing gage-height record, Oct. 17 to Nov. 11, 1928.

Monthly discharge, in second-feet, of Slippery Rock Creek at Wurtemburg, 1928-1932.

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1928-29					
October	750	60	182	0.450	0.52
November	1,620	60	449	1.11	1.24
December	2,620	130	640	1.58	1.82
January	3,970	110	722	1.79	2.06
February	10,700	60	811	2.01	2.09
March	2,340	730	1,420	3.51	4.05
April	8,690	808	1,950	4.83	5.39
May	4,160	351	1,410	3.49	4.02
June	281	76	161	.399	.45
July	4,160	92	696	1.72	1.98
August	95	37	60.5	.150	.17
September	693	22	101	.250	.28
The year	10,700	22	716	1.77	24.07
1929-30					
October	3,380	69	455	1.13	1.30
November	4,740	197	916	2.27	2.53
December	3,090	220	911	2.25	2.59
January	5,900	140	1,320	3.27	3.77
February	4,530	140	695	1.72	1.79
March	2,620	418	976	2.42	2.79
April	1,140	282	603	1.49	1.66
May	2,090	151	354	.876	1.01
June	1,600	93	233	.577	.64
July	104	41	65.6	.162	.19
August	62	25	35.3	.087	.10
September	76	22	40.0	.099	.11
The year	5,900	22	550	1.36	18.48
1930-31					
October	71	25	38.5	.095	.11
November	80	24	43.0	.106	.12
December	180	30	58.5	.145	.17
January	120	33	56.3	.139	.16
February	963	60	272	.673	.70
March	1,320	54	291	.720	.83
April	1,520	128	600	1.49	1.66
May	1,740	171	590	1.46	1.68
June	2,400	82	351	.869	.97
July	372	51	111	.275	.32
August	547	37	104	.257	.30
September	452	32	85.0	.210	.23
The year	2,400	24	216	.535	7.25
1931-32					
October	102	29	49.8	.123	.14
November	148	33	76.5	.189	.21
December	5,170	131	971	2.40	2.77
January	5,130	365	1,980	4.90	5.65
February	110	224	539	1.33	1.43
March	2,370	157	484	1.20	1.38
April	1,530	200	616	1.52	1.70
May	2,930	86	497	1.23	1.42
June	239	48	84.4	.209	.23
July	720	40	127	.314	.36
August	153	29	48.6	.120	.14
September	121	22	41.5	.103	.11
The year	5,170	22	461	1.14	15.54

RACCOON CREEK AT MOFFATT'S MILL

LOCATION.—Chain gage at highway bridge at Moffatt's Mill, Beaver County, 4 miles west of Woodlawn.

DRAINAGE AREA.—178 square miles.

RECORDS AVAILABLE.—May 1915, to July, 1932 (discontinued).

EXTREMES.—Maximum stage during the year ending Sept. 30, 1929, 6.20 feet Feb. 25; minimum, 1.05 feet Sept. 1, 2.

Maximum and minimum stages during year ending Sept. 30, 1930, were not determined.

Maximum stage during year ending Sept. 30, 1931, 7.27 feet (determined from hydrograph) June 7; minimum, 1.30 feet Oct. 4-7.

Maximum stage during period Oct. 1, 1931, to July 31, 1932, 4.90 feet Mar. 22; minimum, 1.34 feet July 27.

1915-1932: Maximum stage, 9.80 feet Mar. 5, 1920, Apr. 15, 1922; minimum, that of Sept. 1, 2, 1928.

REMARKS.—Gage height record good. Owing to poor channel conditions and frequent changes at control section it has not been possible to obtain a rating for the determination of discharge. The following current-meter discharge measurements were obtained:

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	Second-feet		Feet	Second-feet		Feet	Second-feet
1929			1930			1932		
Nov. 24	2.64	206	Aug. 28	1.41	4.13	Jan. 8	3.21	420
1930			1931			May 23	2.17	79
Aug. 28	1.21	4.38	Oct. 8	1.72	15.6	May 23	2.15	74

Daily Mean Gage Height, in feet, 1928-1932.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29												
1	1.50	1.68	2.50	2.00	3.25	4.00	2.17	2.73	2.33	1.92	1.60	1.05
2	1.52	1.68	2.18	2.75	3.00	3.68	2.50	3.00	2.20	1.83	1.58	1.05
3	1.52	1.68	2.08	1.92	2.80	3.38	2.52	4.20	2.14	1.70	1.58	1.09
4	1.52	1.68	2.01	1.98	2.65	3.05	2.48	3.70	2.11	1.70	2.40	1.09
5	1.53	1.67	1.87	2.02	2.60	3.90	2.90	4.00	2.15	3.00	1.70	1.15
6	1.54	1.65	2.05	3.24	2.65	3.45	3.70	3.68	2.16	2.70	1.49	1.15
7	1.54	1.64	2.25	3.40	2.90	2.90	3.22	3.62	2.14	2.75	1.48	1.15
8	1.54	1.60	1.95	3.30	2.90	2.80	2.90	3.32	2.24	3.10	1.49	1.25
9	1.53	1.58	1.84	3.19	2.90	2.20	2.87	3.20	2.12	2.60	1.50	1.35
10	1.52	1.58	1.84	3.10	2.68	1.98	3.35	3.03	2.04	2.79	1.54	1.35
11	1.52	1.59	1.82	2.93	2.57	2.05	3.32	2.87	2.02	2.38	1.57	1.31
12	1.50	1.60	1.80	2.68	2.50	2.05	3.18	2.76	2.00	2.10	1.81	1.31
13	1.48	1.60	1.82	2.44	2.47	2.40	3.15	3.12	1.98	2.10	1.82	1.27
14	1.48	1.62	1.92	2.10	2.40	3.30	3.12	3.82	1.99	2.06	1.76	1.75
15	1.46	1.62	2.60	2.10	2.38	3.62	3.52	3.62	2.09	2.04	1.75	1.73
16	1.46	1.62	2.25	2.10	2.30	4.10	4.18	3.38	2.00	2.02	1.67	1.73
17	1.48	1.64	2.19	2.26	2.87	3.58	4.70	3.00	1.91	1.96	1.46	1.71
18	1.73	1.64	2.26	3.40	3.42	3.15	3.85	2.77	1.87	1.92	1.42	1.69
19	1.75	1.67	2.26	4.20	3.15	3.05	3.50	4.10	1.84	1.92	1.41	1.67
20	1.70	2.44	2.15	3.60	2.48	2.98	3.52	3.85	1.82	1.98	1.40	1.65
21	1.66	2.20	2.08	2.93	2.48	2.86	3.68	4.55	1.82	1.93	1.40	1.65
22	1.64	2.03	1.94	2.86	2.35	2.86	3.55	4.40	1.80	1.78	-------	1.61
23	1.64	1.90	2.58	3.80	2.18	2.92	3.35	3.70	1.78	1.68	-------	1.61
24	1.68	1.88	2.31	3.23	2.30	2.90	3.21	3.40	2.08	1.67	-------	1.59
25	1.68	1.85	2.26	4.35	5.60	2.81	3.08	3.30	1.94	1.66	-------	1.57
26	1.69	1.82	2.24	3.95	5.50	3.20	3.70	2.98	1.84	1.89	-------	1.57
27	1.69	1.79	2.20	3.40	5.00	3.42	3.34	2.75	1.80	1.86	-------	1.49
28	1.64	1.76	2.19	3.15	4.35	2.99	3.18	2.70	1.95	1.81	-------	1.47
29	1.64	1.64	2.12	2.95	-------	2.77	3.07	2.81	2.28	1.74	-------	1.41
30	1.64	1.70	2.08	2.65	-------	2.65	2.86	2.64	2.04	1.69	-------	1.65
31	1.64	-------	2.04	2.95	-------	2.40	-------	2.52	-------	1.62	-------	-------

Daily Mean Gage Height, in feet, of Raccoon Creek at Moffatt's Mill, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1929-30												
1	1.57	1.55	2.41	3.12	2.54	3.72	2.40	-------	-------	1.77	1.37	1.36
2	1.91	1.60	2.45	3.19	2.56	3.60	2.39	-------	-------	1.92	1.36	1.53
3	3.04	1.95	2.45	3.24	2.60	3.60	2.39	-------	-------	1.70	1.36	1.32
4	2.10	1.93	2.46	3.30	2.65	3.54	2.33	-------	-------	1.61	1.36	1.36
5	1.65	1.87	2.48	3.21	2.74	3.40	2.26	-------	-------	1.57	1.34	1.36
6	1.61	1.83	2.50	3.10	3.40	3.40	2.24	-------	-------	1.56	1.33	1.35
7	1.57	1.77	2.53	3.01	2.65	3.69	2.20	-------	-------	1.56	1.33	1.35
8	1.57	1.73	2.55	2.92	2.60	3.74	2.20	-------	-------	1.56	1.40	1.31
9	1.45	1.65	2.54	2.93	2.61	3.64	2.19	-------	-------	1.55	1.38	1.30
10	1.45	1.50	2.48	2.94	2.60	3.60	2.17	-------	-------	1.51	1.38	1.30
11	1.41	1.37	2.44	2.96	2.65	3.59	2.16	-------	-------	1.48	1.38	1.30
12	1.41	1.35	2.52	3.78	2.75	3.55	2.12	-------	2.02	1.47	1.38	1.30
13	1.35	-------	3.35	3.78	3.18	3.46	2.34	-------	1.94	1.44	1.36	1.32
14	1.30	-------	4.08	3.76	2.93	3.39	2.44	-------	1.90	1.51	1.35	1.30
15	1.25	-------	3.92	3.70	2.67	3.03	2.62	-------	1.93	1.48	1.32	1.30
16	1.25	-------	3.17	3.62	2.33	2.98	2.36	-------	1.80	1.45	1.32	1.30
17	1.20	-------	2.99	3.41	3.08	2.86	2.32	-------	2.10	1.44	1.32	1.29
18	1.20	-------	2.99	3.33	2.84	2.84	2.08	-------	1.94	1.44	1.36	1.27
19	1.20	-------	2.95	2.89	2.56	2.81	2.09	-------	2.04	1.44	1.36	1.26
20	1.20	-------	2.95	2.76	2.47	2.80	2.27	-------	1.87	1.43	1.34	1.26
21	1.20	-------	2.98	2.70	2.34	2.80	2.33	-------	1.78	1.40	1.35	1.25
22	1.20	-------	2.98	2.67	2.19	2.60	2.42	-------	1.76	1.40	1.35	1.24
23	1.63	-------	2.79	2.62	2.26	2.80	2.33	-------	1.74	1.43	1.36	1.24
24	1.57	-------	2.98	2.56	6.03	2.84	2.30	-------	1.73	1.68	1.36	1.26
25	1.50	2.70	2.92	2.50	5.45	2.82	2.24	-------	1.86	1.51	1.36	1.30
26	1.45	2.40	2.88	2.50	4.70	2.80	2.17	-------	1.81	1.47	1.40	1.31
27	1.40	2.42	2.86	2.49	4.30	2.70	2.16	-------	1.75	1.45	1.40	1.36
28	1.37	2.45	2.82	2.51	3.97	2.68	2.11	-------	1.73	1.51	1.41	1.39
29	1.35	2.41	2.76	2.52	-------	2.63	2.08	-------	1.64	1.48	1.38	1.38
30	1.40	2.40	2.75	2.50	-------	2.59	2.16	-------	1.61	1.43	1.35	1.35
31	1.60	-------	2.81	2.52	-------	2.57	-------	-------	-------	1.39	1.34	-------
1930-31												
1	1.34	1.44	1.47	1.52	1.62	1.99	2.83	2.19	2.09	2.17	1.69	1.78
2	1.34	1.42	1.77	1.50	1.66	1.96	3.55	2.17	2.00	2.17	1.68	2.40
3	1.32	1.40	1.67	1.49	1.66	1.87	3.77	2.22	1.93	2.34	1.64	3.28
4	1.30	1.42	1.57	1.46	1.61	1.87	5.60	2.15	1.90	2.14	1.63	2.49
5	1.30	1.41	1.50	1.53	1.54	1.79	4.05	2.09	2.00	2.09	1.64	2.24
6	1.30	1.40	1.77	1.66	1.67	1.78	3.38	2.05	1.97	2.01	1.60	2.09
7	1.30	1.38	2.18	1.80	1.60	1.77	3.10	2.06	2.89	2.21	1.55	1.97
8	1.34	1.39	1.85	1.74	1.89	1.81	2.88	2.96	4.12	1.92	1.54	1.90
9	1.35	1.40	1.73	1.63	1.91	1.88	2.72	2.69	3.17	1.85	1.53	1.87
10	1.37	1.39	1.68	1.61	1.80	1.83	2.63	2.51	2.74	1.83	1.62	1.81
11	1.36	1.38	1.63	1.55	1.81	1.79	3.05	2.41	2.51	1.89	2.06	1.77
12	1.36	1.41	1.60	1.59	1.81	1.83	2.86	2.42	2.36	1.83	1.81	1.72
13	1.36	1.46	1.59	1.59	1.85	1.80	2.73	3.37	2.26	1.77	1.79	1.70
14	1.36	1.51	1.54	1.58	2.82	1.86	2.60	3.89	2.18	1.72	1.89	1.66
15	1.34	1.51	1.54	1.58	2.54	2.02	2.49	3.37	2.64	1.76	1.69	1.64
16	1.34	1.48	1.50	1.56	2.38	2.06	2.41	3.00	2.34	1.94	1.61	1.77
17	1.35	1.46	1.46	1.56	2.19	2.04	2.36	2.78	2.23	1.79	1.53	1.86
18	1.36	1.44	1.46	1.56	2.63	2.01	2.32	2.64	2.11	1.70	1.62	2.75
19	1.36	1.43	1.45	1.63	2.59	2.02	2.25	2.66	2.03	1.75	2.08	2.11
20	1.36	1.42	1.44	1.85	2.56	2.17	2.20	2.53	1.98	2.32	2.19	1.89
21	1.42	1.42	1.44	1.80	2.49	2.19	2.15	2.42	1.97	2.21	2.01	1.84
22	1.40	1.40	1.47	1.77	2.36	2.13	2.17	2.30	2.00	2.99	1.87	1.77
23	1.40	1.40	1.48	1.68	2.24	2.10	2.57	2.39	3.17	1.97	1.76	1.71
24	1.40	1.41	1.46	1.69	2.16	2.07	2.37	2.34	2.72	2.14	1.70	1.95
25	1.40	1.42	1.44	1.67	2.06	2.44	2.29	2.32	2.27	2.00	1.67	1.94
26	1.41	1.40	1.48	1.81	1.92	2.76	2.38	2.35	2.83	1.96	1.66	2.37
27	1.42	1.38	1.48	1.86	1.98	2.67	2.60	2.22	3.29	1.87	1.81	2.27
28	1.48	1.39	1.53	1.82	1.88	2.70	2.47	2.16	2.77	1.80	1.82	2.07
29	1.54	1.41	1.55	1.76	-------	3.32	2.38	2.13	2.46	1.76	1.84	1.96
30	1.53	1.45	1.56	1.63	-------	3.00	2.28	2.05	2.27	1.72	1.72	1.87
31	1.47	-------	1.52	1.71	-------	2.75	-------	2.06	-------	1.70	1.74	-------

Daily Mean Gage Height, in feet, of Raccoon Creek at Moffatt's Mill, 1928-1932—Continued.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1931-32										
1	1.83	1.66	2.41	3.66	3.19	2.14	3.70	2.25	1.91	1.50
2	1.80	1.65	2.46	4.08	3.11	2.08	3.40	2.18	1.92	1.54
3	1.77	1.66	2.63	3.65	3.18	2.08	3.20	2.11	1.91	1.57
4	1.75	1.64	2.61	3.25	3.11	2.20	2.99	2.09	1.86	1.63
5	1.73	1.62	2.10	3.03	2.96	2.59	2.89	2.15	1.83	1.95
6	1.74	1.61	2.08	3.00	2.88	2.52	2.79	2.18	1.78	1.74
7	1.73	1.60	2.03	3.48	2.82	2.32	2.66	2.10	1.80	1.70
8	1.73	1.60	1.95	3.17	2.76	2.31	2.70	2.07	1.76	2.18
9	1.75	1.60	1.96	3.00	2.67	2.34	2.68	2.24	1.71	1.82
10	1.80	1.60	2.07	2.83	2.68	2.31	2.80	3.77	1.85	1.78
11	1.79	1.60	2.21	2.68	2.63	2.31	2.81	4.15	1.67	1.68
12	1.68	1.62	3.00	2.61	2.64	2.29	3.09	3.98	1.68	1.60
13	1.68	1.71	3.12	2.59	2.53	2.29	3.03	3.41	1.72	1.64
14	1.68	1.94	4.00	2.50	2.46	2.30	2.95	3.11	1.74	1.57
15	1.71	1.76	3.58	2.94	2.42	2.16	2.85	2.94	1.72	1.55
16	1.74	1.72	3.07	3.01	2.35	2.18	2.76	2.75	1.70	1.68
17	1.79	1.69	2.80	2.93	2.47	2.36	2.67	2.69	1.76	2.00
18	1.89	1.70	2.61	4.00	2.42	2.92	2.61	2.46	1.70	1.80
19	1.77	1.76	2.50	3.38	2.34	2.82	2.53	2.38	1.62	1.69
20	1.70	1.78	2.42	3.10	2.30	2.78	2.48	2.34	1.78	1.59
21	1.68	1.79	2.32	2.95	2.22	2.85	2.45	2.31	1.66	1.47
22	1.68	1.80	2.34	3.07	2.29	4.55	2.39	2.22	1.50	1.48
23	1.59	1.77	2.42	3.80	2.20	3.80	2.34	2.17	1.58	1.39
24	1.66	1.72	2.50	4.35	2.09	3.33	2.29	2.13	1.50	1.60
25	1.66	1.77	3.17	3.60	2.13	3.07	2.89	2.09	1.45	1.45
26	1.67	1.79	2.82	3.26	2.22	2.94	2.46	2.06	1.45	1.38
27	1.66	1.82	2.65	3.22	2.19	2.87	2.32	2.03	1.55	1.40
28	1.66	1.81	2.59	2.99	2.18	3.22	2.23	2.02	1.72	1.47
29	1.64	1.86	2.51	2.90	2.17	3.60	2.21	2.01	1.66	2.37
30	1.66	2.04	2.42	4.65		3.34	2.22	1.95	1.55	2.11
31	1.64		2.35	3.65		3.31		1.92		1.85

Miscellaneous Discharge Measurements.

Stream	Location	Date		Gage Height	Discharge	Drainage Area	Per Square Mile
				Feet	Second-feet	Square Miles	Second-feet
Delaware Basin		1932					
Lackawaxen River	½ mile upstream from mouth of Middle Creek at Hawley	Sept.	28		28.7	211	0.136
West Branch Lackawaxen River	0.9 mile above dam at Seelyville, 2.1 miles west of Honesdale		28		33.0	52.7	.625
Dyberry Creek	1 mile upstream from mouth near Honesdale		28		6.52	69.1	.094
Middle Creek	¾ mile upstream from mouth at Hawley		28		7.45	77.1	.097
Wallenpaupack Creek	100 feet downstream from mouth of Butternut Creek near Sterling		29		7.15	70.4	.102
West Branch Wallenpaupack Creek	½ mile upstream from mouth of West Branch, near Sterling		29		14.9	73.7	.202
Blooming Grove Creek	0.1 mile upstream from mouth near Rowlands		29		2.76	25.3	.109
Do	Do		29		2.77	25.3	.109
Shohola Creek	0.2 mile upstream from mouth near Shohola		29		36.8	84.1	.433
Saw Kill	0.5 mile upstream from mouth at Milford		30		2.67	23.4	.114
Raymond Kill	0.2 mile upstream from mouth near Milford		30		1.52	24.2	.063
Bushkill Creek	800 feet upstream from mouth of Saw Creek at Shoemakers		30		16.9	85.5	.198
Do	300 feet downstream from mouth of Saw Creek at Shoemakers		30		15.3	116.6	.131
Saw Creek	0.2 mile upstream from mouth near Shoemakers		30		2.33	31.1	.075
Little Bushkill Creek	1.2 miles upstream from mouth near Bushkill		30		2.08	25.6	.081
		1931					
Pennypack Creek	At Paper Mills, 1.2 miles north of Bethayres	July	31	18.84	18.3	23.7	.772
Do	Do		31	18.84	16.5	23.7	.696
Do	Do	Aug.	14	18.74	23.5	23.7	.991
Do	Do		14	18.74	24.6	23.7	1.04
Do	Do	Sept.	24	19.08	4.70	23.7	.198
Do	Do	Oct.	21	18.98	4.83	23.7	.204
Do	Do		30	18.91	6.73	23.7	.284
Do	Do	Nov.	11	18.96	4.71	23.7	.199
		1932					
Do	Do	Jan.	2	18.31	51.7	23.7	2.18
Do	Do		5	18.85	9.72	23.7	.410
Wissahickon Creek	400 feet above mouth at Philadelphia	Aug.	2		21.7	63.8	.340
Do	Do		29		16.0	63.8	.251
Crum Creek	At Castle Rock Bridge near Newtown Square	Jan.	29		11.0	20.0	.550
		1930					
Tributary to Valley Creek	At Paradise Farm near Downingtown	Nov.	7		.067	0.1	1.49
		1931					
Barlow Branch Blackbird Creek	1 mile upstream from mouth near Townsend, Del.	July	24		.43	6.03	.073
Do	Do	Aug.	20	17.73	.51	6.03	.085
Do	Do	Sept.	16		.38	6.03	.063
Do	Do	Oct.	22		.42	6.03	.070
Do	Do		30		1.59	6.03	.264

Miscellaneous Discharge Measurements—Continued.

Stream	Location	Date	Gage Height	Discharge	Drainage Area	Per Square Mile
			Feet	Second-feet	Square Miles	Second-feet
Delaware Basin		1931				
Barlow Branch Blackbird Creek	1 mile upstream from mouth near Townsend, Del.	Nov. 10	17.66	0.69	6.03	0.114
Do	Do	Dec. 4	17.71	1.36	6.03	.226
		1932				
Do	Do	Jan. 5	17.50	2.81	6.03	.466
		1931				
Mudstone Branch St. Jones Creek	At highway bridge 1¾ miles above mouth one mile northwest of Chestnut Grove School, Del.	July 23	----------	.32	8.84	.036
Do	Do	24	----------	.32	8.84	.036
Do	Do	Aug. 20	11.45	.44	8.84	.050
Do	Do	Sept. 17	----------	.63	8.84	.072
Do	Do	Oct. 23	----------	1.39	8.84	.157
Do	Do	30	----------	6.24	8.84	.705
Do	Do	Nov. 10	11.03	1.87	8.84	.211
Do	Do	Dec. 4	10.98	2.70	8.84	.305
		1932				
Do	Do	Jan. 6	10.77	5.19	8.84	.587
		1931				
Murderkill River	At mouth of Killan Pond near Felton, Del.	July 15	----------	.93	18.5	.050
Do	Do	15	----------	1.01	18.5	.054
Susquehanna Basin		1929				
Montgomery Creek	1 mile upstream from mouth near Clearfield	June 18	----------	7.90	14.6	0.54
Do	Do	18	----------	7.77	14.6	.53
Little Clearfield Creek	At mouth at Dimeling	18	----------	3.96	45.7	.09
Lick Run	Near concrete highway bridge 4 miles from mouth near Clearfield	17	----------	12.3	21.6	.57
Do	Do	17	----------	13.3	21.6	.62
Do	Do	19	----------	10.1	21.6	.47
Do	Do	Sept. 25	----------	1.45	21.6	.07
Do	Near steel highway bridge 3 miles from mouth near Clearfield	June 17	----------	12.2	24.9	.49
Do	Do	Sept. 3	----------	1.82	24.9	.07
Do	Do	25	----------	1.57	24.9	.06
North Bald Eagle Creek	At former gaging station at Castanea	Aug. 20	----------	233	780	.30
Do	Do	20	----------	230	780	.29
Loyalsock Creek	At highway bridge at Barbours (Measurements furnished by Penn State College)	July 17	719.09	58.0	376	.15
Do	Do	18	719.07	49.2	376	.13
Do	Do	22	719.08	54.6	376	.15
Loyalsock Creek	At highway bridge at Barbours (Measurements furnished by Penn State College)	1929 July 26	719.03	42.6	376	0.11
Do	Do	30	718.97	38.8	376	.10
Do	Do	Aug. 13	718.89	29.0	376	.08
		1930				
Do	Do	July 11	720.14	492	376	1.31
Do	Do	15	720.27	641	376	1.70
Do	Do	21	719.42	129	376	.34
Do	Do	24	719.42	136	376	.36
Do	Do	28	719.17	84.8	376	.23
Do	Do	Aug. 5	719.01	49.9	376	.13
		1931				
Do	Do	July 9	719.40	126	376	.34
Do	Do	13	719.73	258	376	.69
Do	Do	15	719.48	154	376	.41
Do	Do	22	720.24	547	376	1.45
Do	Do	24	719.42	147	376	.39
Do	Do	28	719.20	73.5	376	.20
Do	Do	Aug. 3	719.09	51.5	376	.14
		1929				
Bald Eagle Creek	At twelfth Street Bridge at Tyrone	Mar. 19	----------	307	48.2	6.37
Do	Do	19	----------	302	48.2	6.27
Do	Do	June 20	----------	27.4	48.2	.57
Do	Do	Aug. 21	----------	12.8	48.2	.27
		1930				
Paxton Creek	At mouth at Harrisburg	Aug. 14	----------	8	25.3	.32
		1931				
Do	Do	Sept. 6	----------	[a] 10	25.3	.40
Spring Creek	At mouth near Harrisburg	6	----------	[a] 1.7	11.6	.15
		1930				
Yellow Breeches Creek	At highway bridge at New Cumberland	Aug. 13	----------	90	228	.39
		1931				
Do	Do	Oct. 5	----------	95	228	.42
		1932				
Do	Do	Sept. 20	----------	18.1	228	.079
Do	Do	26	----------	92.5	228	.41
Unnamed tributary to Yellow Breeches Creek	Above a small tributary at the Central Pennsylvania Game Trout Hatchery at White Hill	Sept. 9	----------	.65	----------	----------
Do	Below small tributary Do	9	----------	1.12	----------	----------
Unnamed Creek	At Central Pennsylvania Game Trout Hatchery	9	----------	.49	----------	----------
		1930				
Swatara Creek	200 feet below highway bridge at Jonestown	Sept. 12	----------	15.4	----------	----------
		1932				
Fishing Creek	1,100 feet above railroad bridge 2 miles northwest of Suedberg	Sept. 28	----------	2.86	----------	----------
Trout Run	At highway bridge 1 mile above mouth near Inwood	May 3	----------	12.3	----------	----------
Do	Do	June 17	----------	2.48	----------	----------
		1930				
[a] Estimated.	1,000 feet above mouth near Inwood	Sept. 11	----------	1.04	8.8	.12

Miscellaneous Discharge Measurements—Continued.

Stream	Location	Date	Gage Height	Discharge	Drainage Area	Per Square Mile
			Feet	Second-feet	Square Miles	Second-feet
Susquehanna Basin		1930				
Trout Run	100 feet above mouth near Inwood	Sept. 11		0.96	8.8	0.11
Little Swatara Creek	1,500 feet above mouth at Jonestown	12		5.39	96.4	.056
		1932				
Indiantown Creek	1,000 feet below St. Joseph Springs	May 3		8.72		
Do	Do	June 17		3.25		
		1930				
Do	At first highway bridge below St. Joseph Springs	Sept. 11		1.14		
Do	Do	11		.98		
		1932				
Do	Do	May 3		10.7		
Do	Do	June 17		3.68		
Unnamed tributary to Indiantown Creek	Proposed dam site near St. Joseph Springs	May 3		2.26		
Do	Do	3		2.33		
Do	Do	June 17		.81		
		1930				
Manada Creek	2,300 feet above highway bridge at Manada Gap	Sept. 12		1.94		
Do	Do	12		1.94		
Do	100 feet above highway bridge at Manada Gap	11		1.54		
Do	Do	11		1.30		
Fishing Creek	At highway bridge at Goldsboro	12		2.40	17.8	.13
Do	Do	12		2.39	17.8	.13
West Conewago Creek	At covered highway bridge 2½ miles southwest of East Berlin	6		2.40		
Do	Do	6		2.58		
		1931				
Do	Do	July 9		32.3		
Do	Do	9		34.1		
South Branch of West Conewago Creek	At highway bridge ¾ mile southwest of Bandanna	1930 Sept. 6		.39	4.67	.084
Do		6		.40	4.67	.086
Do	At weir above pumping station 3½ miles southwest of Hanover	7	.17	.42	19	.022
		1931				
Do	Do	July 9	.36	2.39	19	.13
Do	Do	9	.35	2.54	19	.13
Do	Do	14	.26	1.34	19	.071
Do	Do	14	.26	1.36	19	.072
Do	Do	14	.26	1.48	19	.078
Do	Do	14	.26	1.50	19	.079
South Branch of West Conewago Creek	Above covered bridge half a mile west of Brushtown	1930 Sept. 7		0.92	31.6	0.029
Do	Do	7		.86	31.6	.027
		1931				
Do	Do	July 9		1.61	31.6	.051
Do	Do	9		1.62	31.6	.051
Do	Do	14		3.89	31.6	.12
Do	Do	14		4.01	31.6	.13
		1930				
Bermudian Creek	Above highway bridge 1 mile southeast of York Springs	Sept. 6		1.43		
Do	Do	6		1.40		
		1931				
Do	Do	July 9		1.88		
Do	Do	9		1.83		
		1930				
East Branch of Canoy Creek	One-third mile above Main Street at Elizabethtown	Oct. 28		.065	2.7	.024
Do	Do	Nov. 5		.098	2.7	.036
Do	Do	13		.109	2.7	.040
Do	100 feet above confluence with West Branch at Elizabethtown	5		.102	2.9	.035
Canoy Creek	At West High Street, Elizabethtown	Oct. 28		.039	4.6	.008
Do	Do	Nov. 5		.152	4.6	.033
Do	At old pump station at Masonic Home, Elizabethtown	Oct. 28		.199	7.4	.027
Do	Do	29		.180	7.4	.024
Do	Do	Nov. 5		.271	7.4	.037
Do	Do	13		.171	7.4	.023
West Branch of Canoy Creek	Above reservoir at Elizabethtown	Oct. 28		.144	1.3	.11
Do	Do	Nov. 5		.171	1.3	.13
Do	Do	13		.161	1.3	.12
Negley Run	At East Orange Street, Elizabethtown	Oct. 28		.034	1.3	.026
Unnamed tributary to Codorus Creek	Above pumping station at highway bridge 1 mile east of Public Square in Hanover	Sept. 7		.22		
Bunch Creek	Above highway bridge ¾ mile northwest of Spring Grove	Aug. 6		.20		
Do	Do	6		.18		
South Branch of Codorus Creek	150 feet above confluence with East Branch near Jacobus	6		13.4		
East Branch of Codorus Creek	2,100 feet above bridge on Pennsylvania Highway No. 111 near Jacobus	6		6.54		
Do	At highway bridge at Reynolds Mill near Jacobus	6		21.2	44.6	.48
		1932				
Chickies Creek	At mouth at Marietta	Aug. 10		27.1	127	.21
Do	Do	21		21.2	127	.17
Do	Do	Sept. 22		9.2	127	.072
Potomac Basin		1930				
Marsh Creek	2,600 feet above covered bridge at pumping station 4 miles northwest of Gettysburg	Sept. 7		.73		
Do	Do	7		.77		
Ohio Basin						
Allegheny River	At Lock No. 8 at Mosgrove	Aug. 13		587		
Do	Do	Sept. 16		564		
Do	Do	Oct. 7		691		
Do	Do	7		670		

Miscellaneous Discharge Measurements—Continued.

Stream	Location	Date	Gage Height	Discharge	Drainage Area	Per Square Mile
			Feet	Second-feet	Square Miles	Second-feet
Ohio Basin		1931				
Sams Run	50 feet above Linden Street Bridge at Johnstown	Aug. 11		0.66		
Solomons Run	300 feet above Oats Street Bridge at Johnstown	11		5.58	8.5	.66
		1930				
Little Conemaugh River	Half a mile below concrete highway bridge at South Fork	Oct. 4		27.6		
Loyalhanna Creek	At mouth at Saltsburg	Aug. 12		17.1	300	.057
Do	Do	Oct. 5		16.1	300	.054
Do	Do	5		11.8	300	.039
		1932				
Do	Do	Jan. 9		987	300	3.29
		1930				
Blacklegs Creek	Below highway bridge 2½ miles northeast of Saltsburg	Oct. 5		1.31		
Do	Do	5		.90		
		1928				
Little Chartiers Creek	Half a mile above filtration plant near Cannonsburg	Nov. 10	1.52	4.46	27.5	.16
Do	700 feet above Donaldson's Bridge 0.8 mile southwest of Linden	10	.60	2.42	39.8	.06

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Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1929.

Delaware Basin

Station	Drainage area	Run-off in second-feet per square mile												Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Delaware River at Port Jervis, N. Y.	3,070	------	------	------	------	------	------	------	------	------	------	------	------	1.64	22.32	39.27	56.8
Delaware River at Belvidere, N. J.	4,540	------	------	------	------	------	------	------	------	------	------	------	------	1.59	21.51	38.59	55.7
Delaware River at Riegelsville	6,190	0.635	0.561	0.701	1.09	1.22	4.20	4.60	2.78	0.945	0.556	0.447	0.465	1.52	20.63	38.46	53.6
Delaware River at Trenton, N. J.	6,800	.679	.576	.754	1.21	1.33	4.07	4.43	2.75	.949	.594	.484	.566	1.53	20.80	38.19	54.5
Lackawaxen River at West Hawley	212	.445	.420	.689	1.08	1.67	4.19	4.86	2.32	.500	.278	.177	.171	1.40	18.95	35.22	53.8
Wallenpaupack Creek at Wilsonville	227	.077	.265	.343	1.04	1.09	3.69	3.97	2.58	.515	—.018	—.274	.277	1.13	15.32	31.54	48.6
Bushkill Creek at Shoemakers	115	.624	.686	.913	2.35	1.86	4.55	4.26	3.31	1.11	.535	.368	.590	1.77	23.95	36.29	66.0
McMichaels Creek at Stroudsburg	62	.682	.602	.784	1.81	1.45	2.58	2.79	1.94	.805	.452	.535	.426	1.24	16.80	38.53	43.6
Lehigh River at Tannery	322	.543	.655	.888	1.65	1.47	3.88	4.22	2.78	.963	.550	.509	.705	1.57	21.27	35.28	60.3
Lehigh River at Bethlehem	1,280	.743	.688	.764	1.44	1.58	3.35	3.52	2.49	1.14	.665	.730	.701	1.48	20.13	37.74	53.3
Schuylkill River at Reading	900	.517	.506	.539	1.27	1.97	3.46	3.10	2.21	.900	.457	.530	.984	1.37	18.53	39.07	47.4
Schuylkill River at Pottstown	1,170	.544	.498	.516	1.16	1.90	3.12	2.78	1.91	.885	.466	.562	.810	1.26	17.04	38.34	44.4
Schuylkill River at Norristown	1,760	.602	.536	.631	1.16	2.22	3.01	2.76	1.78	.847	.472	.653	.665	1.27	17.24	37.72	45.7
Little Schuylkill River at Tamaqua	44	.282	.282	.373	1.47	1.17	4.34	4.43	2.24	.641	.309	.330	.445	1.36	18.47	44.52	41.5
Perkiomen Creek at Graters Ford	280	.411	.299	.550	1.36	2.91	3.02	3.17	1.71	.355	.178	1.24	.407	1.29	17.51	37.43	46.8
Brandywine Creek at Chadds Ford	285	1.11	.951	.926	1.24	2.27	2.36	2.53	2.03	1.16	.723	.572	.386	1.35	18.29	41.04	44.6

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1930.

Delaware Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Delaware River at Port Jervis, N. Y.	3,070													1.47	19.95	38.00	52.5
Delaware River at Belvidere, N. J.	4,540	1.05	1.64	1.94	1.90	1.81	3.15	2.13	1.07	1.45	0.474	0.219	0.293	1.43	19.34	37.75	51.2
Delaware River at Riegelsville	6,190	1.13	1.59	1.78	1.83	1.71	3.05	2.26	1.22	1.49	.593	.288	.333	1.44	19.50	37.86	51.5
Delaware River at Trenton, N. J.	6,800	1.20	1.65	1.82	1.88	1.82	3.01	2.19	1.14	1.40	.603	.284	.329	1.44	19.57	37.65	52.0
Lackawaxen River at West Hawley	212	.585	1.48	1.89	1.75	1.49	2.40	1.73	.901	.755	.252	.203	.286	1.14	15.49	39.50	39.2
Wallenpaupack Creek at Wilsonville	227	1.72	1.78	1.46	1.51	1.24	2.82	2.47	1.03	1.64	.279	—.188	—.013	1.31	17.80	39.60	44.9
Bushkill Creek at Shoemakers	115	1.55	2.53	2.14	1.94	2.22	3.28	3.19	1.74	2.05	.681	.288	.291	1.82	24.71	41.15	60.0
McMichaels Creek at Stroudsburg	62	1.39	2.13	1.44	1.77	1.54	2.58	2.44	1.55	1.87	.671	.392	.298	1.51	20.40	37.21	54.8
Lehigh River at Tannery	322	2.09	2.10	1.89	1.80	1.62	2.61	3.04	1.68	1.97	1.08	.354	.317	1.71	23.24	42.65	54.5
Lehigh River at Bethlehem	1,280	1.80	1.95	1.72	1.77	1.61	2.43	2.57	1.78	1.57	.875	.434	.409	1.58	21.40	38.52	55.6
Schuylkill River at Reading	900	1.93	1.89	1.34	1.63	2.02	2.46	2.44	1.14	.810	.331	.192	.209	1.37	18.45	35.23	52.4
Schuylkill River at Pottstown	1,170	1.78	1.68	1.18	1.48	1.85	2.15	1.99	1.11	.813	.391	.262	.303	1.25	16.90	34.68	48.7
Schuylkill River at Norristown	1,760	1.75	1.64	1.27	1.40	2.05	1.98	1.68	.989	.688	.343	.214	.233	1.18	16.03	34.80	46.1
Little Schuylkill River at Tamaqua	44	2.32	2.34	1.41	1.86	1.64	3.00	2.95	1.60	1.20	.505	.293	.295	1.62	21.95	37.55	58.5
Perkiomen Creek at Graters Ford	280	2.03	1.71	1.50	1.38	2.78	1.72	1.09	.418	.205	.122	.075	.110	1.09	14.73	34.89	42.2
Brandywine Creek at Chadds Ford	285	1.12	1.19	.996	1.02	1.94	1.89	1.45	1.02	.712	.509	.288	.379	1.03	13.98	37.69	37.1

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1931.

Delaware Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Delaware River at Port Jervis, N. Y.	3,070													1.37	18.61	38.32	48.6
Delaware River at Belvidere, N. J.	4,540	0.190	0.330	0.447	0.482	0.678	2.49	3.66	2.71	1.44	1.87	0.551	0.335	1.27	17.23	38.59	44.6
Delaware River at Riegelsville	6,190	.228	.334	.410	.485	.746	2.31	3.39	2.60	1.42	1.73	.553	.381	1.22	16.52	37.94	43.5
Delaware River at Trenton, N. J.	6,800	.237	.356	.465	.549	.775	2.09	3.21	2.44	1.39	1.74	.596	.407	1.19	16.15	37.93	42.6
Lackawaxen River at West Hawley	212	.208	.314	.335	.542	.939	3.31	3.07	2.74	.698	1.32	.357	.233	1.17	15.95	39.46	40.4
Wallenpaupack Creek at Wilsonville	227	—.129	.089	.099	.282	.604	2.38	3.83	2.14	.921	1.09	.121	—.092	.947	12.83	35.11	36.5
Bushkill Creek at Shoemakers	115	.210	.443	.476	.822	1.30	2.90	3.14	2.25	1.30	1.40	.471	.323	1.25	16.97	37.01	45.8
McMichaels Creek at Stroudsburg	62	.279	.345	.406	.579	1.16	1.89	2.08	1.71	.852	1.33	.673	.587	.990	13.43	38.72	34.7
Lehigh River at Tannery	322	.252	.255	.345	.419	.556	2.30	3.02	2.76	1.25	1.43	.699	.491	1.15	15.64	37.20	42.0
Lehigh River at Bethlehem	1,280	.316	.329	.367	.537	.854	1.64	2.16	2.16	1.10	1.16	.652	.548	.984	13.37	35.64	37.6
Schuylkill River at Pottstown	1,170	.221	.264	.358	.587	.815	1.16	1.29	1.54	.940	1.17	.628	.474	.787	10.69	36.08	29.6
Schuylkill River at Norristown	1,760	.156	.201	.289	.517	.767	..994	1.09	1.22	.892	1.40	.642	.432	.716	9.74	37.53	26.0
Little Schuylkill River at Tamaqua	44	.158	.163	.205	.324	.621	2.06	2.19	3.22	1.01	.979	.495	.274	.979	13.29	37.62	35.3
Perkiomen Creek at Graters Ford	280	.081	.190	.282	.743	1.03	1.06	.939	.782	.846	1.24	.479	.396	.671	9.09	40.11	22.7
Brandywine Creek at Chadds Ford	285	.256	.354	.491	.804	.768	.867	.818	1.16	1.03	1.62	1.00	.540	.811	11.02	38.24	28.8

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1932.

Delaware Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Delaware River at Port Jervis, N. Y.	3,070	------	------	------	------	------	------	------	------	------	------	------	------	1.48	20.11	36.04	55.8
Delaware River at Belvidere, N. J.	4,540	0.206	0.271	0.866	2.25	2.22	1.48	4.07	1.65	1.26	0.637	0.308	0.182	1.28	17.37	34.74	50.0
Delaware River at Riegelsville	6,340	.259	.279	.748	2.02	1.99	1.49	3.79	1.61	1.19	.615	.323	.205	1.20	16.40	34.05	48.2
Delaware River at Trenton, N. J.	6,800	.257	.287	.732	2.03	1.99	1.54	3.68	1.56	1.13	.618	.335	.212	1.19	16.24	33.79	48.1
Lackawaxen River at West Hawley	212	.157	.167	.703	2.39	2.40	1.39	3.96	1.37	1.70	.505	.282	.173	1.26	17.13	37.98	45.1
Wallenpaupack Creek at Wilsonville	227	—.114	—.048	—.030	1.00	2.35	1.69	3.79	1.36	1.13	.163	.077	—.225	.916	12.50	35.53	35.2
Bushkill Creek at Shoemakers	115	.198	.162	.477	1.64	2.70	1.85	3.42	1.90	1.24	.542	.220	.077	1.20	16.24	32.92	49.3
McMichaels Creek at Stroudsburg	62	.429	.421	.544	1.74	1.43	1.87	2.94	1.42	.829	.566	.419	.340	1.08	14.65	30.50	48.0
Lehigh River at Tannery	322	.248	.271	.450	1.62	1.48	1.82	3.82	1.73	1.75	.941	.441	.261	1.23	16.76	32.77	51.1
Lehigh River at Bethlehem	1,280	.355	.318	.480	1.27	1.34	1.65	2.69	1.50	1.11	.709	.428	.292	1.01	13.72	32.08	42.8
Neshaminy Creek at Rushland	135	.068	.062	.154	1.44	.741	1.81	1.50	.638	.263	.177	.139	.027	.585	7.97	32.19	24.8
Schuylkill River at Pottstown	1,170	.341	.268	.451	1.62	1.03	1.96	2.14	1.61	.906	.479	.375	.219	.949	12.93	35.61	36.3
Schuylkill River at Norristown	1,760	.314	.238	.412	1.58	.909	1.95	1.88	1.28	.727	.391	.311	.170	.847	11.55	35.57	32.5
Little Schuylkill River at Tamaqua	44	.215	.179	.314	1.49	1.28	2.43	3.07	1.62	1.00	.739	.341	.151	1.07	14.53	33.82	43.0
Perkiomen Creek at Graters Ford	280	.156	.136	.329	2.06	.814	2.42	1.72	1.04	.629	.211	.180	.085	.818	11.12	34.75	32.0
Crum Creek at Woodlyn	34.0	.518	.418	.429	.491	.465	.671	.835	.700	.547	.559	.512	.515	.556	7.55	35.02	21.6
Ridley Creek at Moylan	32.4	.383	.386	.500	1.19	.790	1.64	1.35	1.10	.577	.324	.260	.210	.725	9.88	34.74	28.4
Chester Creek near Chester	61.4	.306	.296	.396	1.08	.674	1.45	1.18	.972	.537	.283	.225	.169	.632	8.60	35.46	24.3
Mill Creek at Stanton, Del.	12.3	.296	.360	.337	1.22	.810	1.33	1.28	1.06	.574	.322	.288	.150	.667	9.10	33.72	27.0
Brandywine Creek at Chadds Ford	285	.407	.389	.484	1.13	.786	1.78	1.59	1.13	.625	.389	.348	.208	.772	10.51	33.93	31.0
Leipsic River near Cheswold, Del.	9.21	.394	.429	.539	1.18	1.08	2.33	1.64	1.88	.827	.493	.341	.355	.960	13.04	36.76	35.5
Murderkill River near Felton, Del.	14.4	.258	.344	.375	1.21	1.54	2.43	1.68	1.92	.622	.355	.169	.128	.916	12.50	36.20	34.5

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1929.

Susquehanna Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
North Branch—Susquehanna River at Towanda	7,770	0.185	0.349	0.806	0.514	0.619	4.38	5.89	3.08	0.422	0.266	0.147	0.124	1.40	19.02	35.90	53.0
North Branch—Susquehanna River at Wilkes-Barre	9,960	.210	.356	.764	.511	.601	3.99	5.24	2.98	.528	.275	.154	.129	1.32	17.86	34.96	51.1
North Branch—Susquehanna River at Danville	11,200	.227	.346	.705	.512	.554	3.89	5.14	3.04	.556	.299	.179	.161	1.30	17.70	35.07	50.5
Susquehanna River at Harrisburg	24,100	.249	.351	.639	.705	.851	3.93	4.56	2.99	.734	.384	.181	.192	1.32	17.87	35.44	50.4
Towanda Creek near Monroeton	218	.102	.163	.232	.523	1.34	2.69	4.57	3.24	.292	.083	.039	.037	1.11	15.02	32.73	45.9
Tunkhannock Creek at Dixon	393	.155	.187	.471	.394	1.14	3.41	4.02	2.67	.463	.288	.163	.122	1.12	15.24	35.02	43.5
Wapwallopen Creek near Wapwallopen	46	.196	.343	.415	.665	1.23	2.41	3.70	2.07	.600	.424	.171	.147	1.03	13.96	39.92	35.0
West Branch—Susquehanna River at Bower	315	.244	.746	1.09	1.53	1.95	4.60	5.62	2.90	.454	.457	.177	.128	1.66	22.45	38.87	57.8
West Branch—Susquehanna River at Renovo	2,990	.213	.525	1.02	1.33	1.02	5.22	4.82	3.41	.809	.589	.126	.109	1.61	21.79	42.34	51.5
West Branch—Susquehanna River at Williamsport	5,670	.228	.397	.769	1.21	.781	4.96	4.66	3.53	.834	.489	.153	.141	1.52	20.62	37.79	54.6
Clearfield Creek at Dimeling	370	.182	.305	.530	.789	1.50	4.16	4.92	2.64	.492	.276	.119	.094	1.33	18.07	40.35	44.8
Driftwood Branch — Sinnemahoning Creek at Sterling Run	270	.254	.689	1.71	2.29	1.13	6.67	5.26	3.78	.889	1.52	.175	.204	2.06	27.94	48.35	57.8
North Bald Eagle Creek at Beech Creek Station	565	.405	.411	.409	.527	1.03	3.52	3.38	3.27	.929	.446	.354	.358	1.25	17.04	31.28	54.5
Pine Creek at Cedar Run	590	.166	.373	.866	1.46	1.15	4.66	5.66	3.31	.627	.227	.046	.082	1.55	21.10	35.32	59.7
Lycoming Creek near Trout Run	185	.188	.329	.573	.962	1.09	4.21	4.96	3.10	.515	.166	.081	.077	1.36	18.39	35.76	51.4
Loyalsock Creek at Loyalsock	433	.263	.379	.573	.790	.975	3.37	4.57	3.53	.596	.208	.110	.142	1.30	17.55	35.15	49.9
Frankstown Branch—Juniata River at Williamsburg	295	.293	.293	.369	.553	1.26	3.46	4.00	2.12	.759	.326	.237	.300	1.16	15.75	34.56	45.6
Juniata River at Newport	3,380	.238	.224	.288	.441	.831	3.22	3.61	1.96	.701	.280	.166	.214	1.01	13.76	32.68	42.1
Raystown Branch—Juniata River at Saxton	790	.204	.227	.335	.565	1.16	3.23	3.90	1.94	.532	.211	.124	.128	1.04	14.16	31.84	44.5
Tuscarora Creek near Port Royal	205	.228	.178	.196	.517	1.43	3.10	3.90	1.60	.644	.207	.096	.095	1.01	13.72	32.91	41.7
Swatara Creek at Harper Tavern	333	.214	.303	.369	1.09	2.09	3.57	3.24	2.19	.727	.336	.306	.565	1.25	16.90	41.23	41.0
Upper Little Swatara Creek at Pine Grove	34.3	.255	.353	.466	1.44	2.22	3.70	3.15	1.81	.843	.344	.367	.574	1.29	17.46	42.05	41.5
South Branch—Codorus Creek near York	117	.759	.628	.589	.932	1.46	2.40	2.45	1.52	1.06	.544	.367	.498	1.09	14.89	37.46	39.7
Conestoga Creek at Lancaster	322	.488	.413	.422	.689	1.66	2.30	2.13	1.58	1.03	.596	.429	.422	1.01	13.68	33.95	40.3

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1930.

Susquehanna Basin

Station	Drainage area	Run-off in second-feet per square mile												Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
North Branch—Susquehanna River at Towanda	7,770	0.623	0.943	1.30	2.08	1.42	2.91	1.66	0.927	0.838	0.297	0.097	0.133	1.19	14.97	35.34	42.4
North Branch—Susquehanna River at Wilkes-Barre	9,960	.689	.990	1.41	2.16	1.29	2.97	1.85	.986	.924	.355	.111	.198	1.16	15.76	35.87	43.9
North Branch—Susquehanna River at Danville	11,200	.667	1.01	1.38	2.10	1.27	2.90	1.93	.973	.938	.394	.118	.187	1.15	15.69	36.08	43.5
Susquehanna River at Harrisburg	24,100	1.09	1.40	1.56	1.88	1.49	2.86	2.04	.942	.871	.388	.120	.141	1.23	16.73	35.48	47.2
Towanda Creek near Monroeton	218	.383	1.01	1.16	1.36	1.09	2.77	1.86	.881	.720	.199	.040	.059	.959	13.06	37.77	34.6
Tunkhannock Creek at Dixon	393	.786	1.02	2.07	1.95	1.38	1.92	1.26	.616	.517	.217	.048	.354	1.01	13.75	39.84	34.5
Wapwallopen Creek near Wapwallopen	46	1.09	1.15	1.19	1.42	1.30	2.05	2.37	1.00	.693	.733	.140	.124	1.10	14.97	42.13	35.5
West Branch—Susquehanna River at Bower	315	1.70	2.32	2.62	2.07	2.42	2.63	2.29	.698	.530	.262	.082	.094	1.47	19.95	33.86	58.9
West Branch—Susquehanna River at Renovo	2,990	1.10	1.95	2.14	2.46	1.87	2.85	2.81	.826	.682	.303	.056	.061	1.42	19.33	36.63	52.8
West Branch—Susquehanna River at Williamsport	5,670	1.05	1.76	2.05	2.28	1.54	3.03	2.77	.944	.921	.363	.108	.099	1.41	19.11	34.52	55.4
Clearfield Creek at Dimeling	370	1.95	1.96	2.29	1.62	2.44	2.44	2.16	.595	.616	.284	.067	.076	1.37	18.58	37.66	49.3
Driftwood Branch—Sinnemahoning Creek at Sterling Run	270	.819	1.94	2.54	3.89	1.64	2.72	3.45	.552	.407	.163	.039	.039	1.51	20.57	39.84	51.6
North Bald Eagle Creek at Beech Creek Station	565	1.16	1.65	1.53	1.28	1.54	2.23	2.19	.887	.641	.381	.260	.234	1.16	15.78	28.48	55.4
Pine Creek at Cedar Run	590	.863	1.64	1.31	2.46	1.28	3.08	2.58	.812	1.31	.468	.087	.085	1.33	18.06	28.33	63.7
Lycoming Creek near Trout Run	185	.435	1.19	1.09	1.50	.957	3.46	2.72	1.57	1.06	.288	.106	.111	1.21	16.41	31.32	52.4
Loyalsock Creek at Loyalsock	433	.928	1.52	1.93	1.60	1.11	2.91	2.73	1.91	1.58	.564	.092	.121	1.42	19.26	30.38	63.4
Penn Creek at Penns Creek	301	1.68	1.87	1.30	1.41	1.54	2.69	1.92	1.02	.894	.379	.170	.143	1.25	16.98	38.53	44.1
Mahantango Creek East near Dalmatia	162	2.91	2.00	1.47	1.60	2.05	2.38	2.22	.870	1.49	.355	.066	.042	1.45	19.69	38.77	50.8
Frankstown Branch—Juniata River at Williamsburg	295	2.45	1.66	1.76	1.11	2.27	2.37	1.70	.685	.376	.261	.184	.161	1.24	16.87	34.80	48.5
Juniata River at Newport	3,380	1.98	1.60	1.24	1.05	1.58	2.22	1.38	.680	.379	.241	.133	.123	1.05	14.28	33.23	43.0
Raystown Branch—Juniata River at Saxton	790	2.09	1.44	1.06	.857	1.42	1.84	1.08	.422	.192	.147	.089	.087	.878	11.95	30.13	39.7
Tuscarora Creek near Port Royal	205	2.82	1.60	1.11	1.02	1.82	2.49	1.19	.566	.267	.155	.040	.032	1.09	14.81	33.45	44.3
Sherman Creek at Shermandale	200	1.94	1.50	1.16	1.10	1.56	2.43	1.33	.635	.408	.170	.090	.093	1.04	14.01	31.68	44.2
Conodoguinet Creek near Hogestown	470	1.59	1.38	.796	.904	1.16	1.67	.898	.455	.370	.209	.189	.152	.813	11.02	31.00	35.5
Swatara Creek at Harper Tavern	333	2.08	1.96	1.35	1.54	2.65	2.26	2.66	.982	1.11	.315	.111	.161	1.42	19.31	34.83	55.4
Upper Little Swatara Creek at Pine Grove	34.3	2.02	1.84	1.18	1.33	2.41	2.03	2.64	.857	.630	.217	.101	.088	1.27	17.22	35.84	48.0
West Conewago Creek near Manchester	511	1.39	1.28	.781	1.06	1.86	1.82	1.07	.391	.440	.130	.026	.068	.855	11.58	32.06	36.1
Codorus Creek at Spring Grove	74.3	1.15	1.00	.666	.948	1.75	1.56	1.47	.592	.567	.370	.376	.470	.904	12.26	33.30	36.8
Conestoga Creek at Lancaster	322	.801	.894	.773	1.18	1.79	1.74	1.31	.727	.606	.326	.145	.204	.870	11.80	31.51	37.4
Muddy Creek at Castle Fin	134	1.79	1.25	.903	.933	1.48	1.52	1.40	.843	.731	.496	.321	.413	1.00	13.62	31.29	43.5

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1931.

Susquehanna Basin

Station	Drainage area	Run-off in second-feet per square mile												Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
North Branch—Susquehanna River at Towanda	7,770	0.091	0.095	0.188	0.163	0.435	2.25	3.06	1.94	0.656	0.592	0.254	0.175	0.828	11.21	32.52	34.5
North Branch—Susquehanna River at Wilkes-Barre	9,960	.110	.109	.194	.140	.353	2.04	3.03	2.26	.759	.726	.269	.185	.850	11.55	32.77	35.2
North Branch—Susquehanna River at Danville	11,200	.106	.104	.198	.165	.385	1.98	3.10	2.27	.768	.705	.283	.195	.857	11.64	32.73	35.6
Susquehanna River at Harrisburg	24,100	.098	.095	.159	.161	.378	1.34	2.98	2.78	.896	.639	.300	.199	.838	11.35	34.34	33.1
Towanda Creek near Monroeton	218	.044	.047	.095	.055	.190	1.98	3.81	2.81	.350	.532	.065	.041	.839	11.36	34.12	33.3
Tunkhannock Creek at Dixon	393	.075	.119	.161	.169	.583	2.27	2.05	3.13	.807	1.50	.282	.150	.947	12.86	36.72	35.0
Wapwallopen Creek near Wapwallopen	46	.111	.116	.128	.139	1.16	1.51	1.80	2.08	.739	.483	.213	.222	.722	9.81	37.03	26.5
West Branch—Susquehanna River at Bower	315	.071	.086	.162	.104	.990	1.51	3.27	2.59	.735	.616	.343	.749	.933	12.70	36.31	35.0
West Branch—Susquehanna River at Renovo	2,990	.046	.058	.103	.066	.398	1.35	3.58	4.08	1.18	.388	.263	.254	.980	13.32	38.67	34.4
West Branch—Susquehanna River at Williamsport	5,670	.073	.072	.113	.075	.346	1.20	3.44	4.11	1.24	.425	.250	.208	.965	13.09	37.01	35.4
Clearfield Creek at Dimeling	370	.046	.070	.149	.093	.686	1.36	3.16	2.84	.514	.381	.319	.435	.835	11.36	37.75	30.1
Driftwood Branch—Sinnemahoning Creek at Sterling Run	270	.099	.130	.197	.185	.309	1.69	4.00	4.26	1.86	.260	.324	.233	1.13	15.34	41.59	36.9
North Bald Eagle Creek at Beech Creek Station	565	.200	.186	.177	.098	.386	.885	2.67	4.23	.823	.497	.393	.280	.904	12.28	38.84	31.6
Pine Creek at Cedar Run	590	.070	.070	.115	.081	.253	1.10	3.47	3.64	1.66	.437	.168	.183	.939	12.72	31.73	40.1
Lycoming Creek near Trout Run	185	.094	.109	.176	.111	.204	2.05	4.38	4.23	.768	.627	.130	.094	1.09	14.73	34.75	42.4
Loyalsock Creek at Loyalsock	433	.070	.081	.186	.079	.249	3.05	4.18	3.76	.714	.446	.161	.127	1.09	14.89	31.70	47.0
Penn Creek at Penns Creek	301	.119	.113	.159	.265	.425	.648	2.29	4.09	1.27	1.13	.532	.227	.940	12.81	43.87	29.2
Mahantango Creek East near Dalmatia	162	.032	.053	.086	.164	.402	.685	1.08	1.64	.517	.247	.240	.082	.436	5.92	31.48	18.8
Frankstown Branch—Juniata River at Williamsburg	295	.156	.163	.178	.264	.566	1.30	2.72	2.12	.725	.722	.254	.285	.786	10.69	37.84	28.3
Juniata River at Newport	3,380	.106	.124	.139	.249	.399	.692	2.15	2.84	.692	1.11	.361	.273	.763	10.37	37.03	28.0
Shaver Creek near Petersburg	46.2	.105	.139	.150	.182	.422	.504	1.57	3.85	.556	.468	.273	.129	.699	9.48	32.90	28.8
Standing Stone Creek near Huntingdon	128	.103	.123	.149	.243	.343	.634	2.16	4.27	.674	.677	.296	.151	.820	11.17	38.52	29.0
Raystown Branch—Juniata River at Saxton	790	.075	.083	.118	.215	.354	.984	2.22	2.53	.411	1.17	.257	.251	.724	9.86	38.02	25.9
Dunning Creek at Yount	191	.047	.071	.110	.202	.576	1.46	2.59	2.26	.446	.628	.377	.389	.764	10.35	38.62	26.8
Great Trough Creek near Marklesburg	84.7	.021	.030	.048	.084	.256	.804	2.35	2.95	.692	1.44	.269	.192	.765	10.38	38.04	27.3
Tuscarora Creek near Port Royal	205	.037	.049	.053	.103	.220	.659	2.06	2.76	.502	1.26	2.32	.131	.673	9.13	34.06	26.8
Cocolamus Creek near Millerstown	55.8	.067	.071	.091	.162	.254	.608	1.64	2.80	.450	.493	.595	.103	.613	8.34	30.85	27.0
Sherman Creek at Shermandale	200	.098	.110	.114	.196	.271	.665	1.66	2.51	.550	.760	.232	.134	.610	8.29	32.62	25.4
Conodoguinet Creek near Hogestown	470	.117	.114	.122	.178	.319	.611	1.17	1.41	.370	.921	.304	.334	.498	6.76	33.73	20.0
Swatara Creek at Harper Tavern	333	.093	.115	.180	.592	.556	1.21	1.26	1.41	.646	.715	.282	.159	.604	8.20	30.75	26.7
Upper Little Swatara Creek at Pine Grove	34.3	.080	.101	.239	.767	.924	1.59	1.41	1.38	.621	.761	.370	.150	.700	9.48	29.84	31.8
West Conewago Creek near Manchester	511	.025	.036	.123	.288	.223	.675	.976	.366	.456	.217	.110	.128	.301	4.09	30.31	13.5
Codorus Creek at Spring Grove	74.3	.241	.560	.689	.553	.466	.720	.945	.555	.505	.369	.367	.299	.522	7.08	32.41	21.8
Conestoga Creek at Lancaster	322	.144	.168	.257	.634	.553	.658	.773	.568	.584	.904	.525	.413	.516	7.00	36.04	19.4
Muddy Creek at Castle Fin	134	.280	.363	.661	.985	.565	.728	.784	.619	.400	.301	.443	.297	.537	7.27	36.50	19.9

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1932.

Susquehanna Basin

Station	Drainage area	Run-off in second-feet per square mile												Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
North Branch—Susquehanna River at Towanda	7,770	0.122	0.301	1.20	2.30	1.97	1.31	4.11	1.67	0.346	0.489	0.268	0.127	1.18	16.05	32.46	49.4
North Branch—Susquehanna River at Wilkes-Barre	9,960	.126	.246	1.01	2.18	2.10	1.39	4.19	1.67	.382	.431	.225	.112	1.16	15.86	32.20	49.3
Susquehanna River at Harrisburg	24,100	.144	.167	.726	1.81	1.68	1.24	3.56	1.89	.456	.363	.178	.104	1.02	13.93	32.20	43.3
Susquehanna River at Marietta	25,990	.152	.167	.689	1.72	1.60	1.21	3.37	1.82	.481	.380	.184	.101	.985	13.43	32.22	41.7
Towanda Creek near Monroeton	218	.037	.044	.077	1.10	1.31	1.49	3.42	1.03	.159	.122	.033	.011	.729	9.96	29.63	33.6
Tunkhannock Creek at Dixon	393	.093	.108	.383	2.20	2.67	2.01	3.44	1.48	.654	.539	.154	.061	1.14	15.51	35.25	44.0
Wapwallopen Creek near Wapwallopen	46	.153	.163	.285	1.17	1.28	1.62	2.28	1.13	1.03	.296	.149	.114	.802	10.92	32.11	34.0
West Branch—Susquehanna River at Bower	315	.274	.279	2.46	3.30	1.83	2.27	2.73	1.28	.613	.625	.164	.082	1.33	18.07	33.76	53.5
West Branch—Susquehanna River at Renovo	2,990	.131	.121	1.60	3.44	1.83	1.58	3.08	2.24	.508	.478	.123	.056	1.27	17.23	30.64	56.2
West Branch—Susquehanna River at Williamsport	5,670	.141	.121	1.02	2.77	1.78	1.31	3.37	2.50	.466	.374	.124	.075	1.17	15.91	30.57	52.0
Clearfield Creek at Dimeling	370	.213	.176	1.64	2.58	1.62	2.35	2.76	1.31	.562	.473	.139	.060	1.16	15.77	35.74	44.1
Driftwood Branch—Sinnemahoning Creek at Sterling Run	270	.166	.269	2.75	5.48	1.63	1.83	3.03	3.81	.517	.224	.075	.057	1.64	22.38	41.69	53.7
North Bald Eagle Creek at Beech Creek Station	565	.228	.250	.407	1.49	1.16	1.28	2.53	1.96	.577	.496	.310	.207	.906	12.34	31.90	38.7
Pine Creek at Cedar Run	590	.077	.091	.707	2.71	1.73	1.23	3.42	2.47	.331	.161	.059	.045	1.08	14.77	27.49	53.7
Lycoming Creek near Trout Run	185	.074	.082	.316	2.54	1.63	1.17	3.71	2.31	.272	.243	.079	.043	1.04	14.10	29.65	47.6
Loyalsock Creek at Loyalsock	433	.068	.086	.286	1.75	1.72	1.73	4.53	1.81	.568	.307	.104	.052	1.08	14.68	31.49	46.6
Mahantango Creek East near Dalmatia	162	.059	.058	.132	.975	.685	2.27	2.69	2.06	.419	.173	.078	.025	.802	10.98	32.71	33.4
Frankstown Branch—Juniata River at Williamsburg	295	.232	.208	.963	1.77	1.53	2.10	2.69	1.45	.417	.220	.159	.156	.990	13.46	32.82	41.0
Juniata River at Newport	3,380	.202	.162	.506	1.19	1.15	1.45	2.66	1.67	.441	.232	.143	.120	.825	11.21	31.14	36.0
Shaver Creek near Petersburg	46.2	.188	.381	.595	1.58	1.22	2.07	2.16	1.79	.435	.198	.080	.063	.896	12.22	28.57	42.8
Standing Stone Creek near Huntingdon	128	.133	.153	.332	1.15	.922	1.71	2.26	1.66	.382	.207	.128	.079	.759	10.33	31.26	33.0
Raystown Branch—Juniata River at Saxton	784	.176	.130	.812	1.26	1.38	1.68	2.26	1.57	.296	.149	.096	.086	.823	11.20	30.34	36.9
Dunning Creek at Yount	191	.240	.137	1.54	1.98	1.59	2.10	2.21	1.20	.198	.080	.057	.059	.948	12.93	30.76	42.0
Brush Creek at Gapsville	36.8	.068	.078	.201	.552	.766	1.90	2.77	2.35	.302	.119	.037	.011	.761	10.39	30.19	34.4
Great Trough Creek near Markleysburg	84.7	.089	.072	.451	1.42	1.24	1.77	2.54	1.83	.575	.198	.057	.031	.855	11.63	30.70	37.9
Aughwick Creek near Orbisonia	174	.113	.149	.338	1.31	1.18	2.34	2.49	1.97	.429	.122	.053	.045	.879	11.95	30.58	39.1
Tuscarora Creek near Port Royal	205	.080	.089	.222	1.11	.761	1.87	2.34	1.54	.320	.149	.062	.151	.722	9.87	31.12	31.7
Cocolamus Creek near Millerstown	55.8	.085	.101	.185	1.13	.683	2.01	2.06	1.97	.378	.134	.061	.058	.740	10.05	32.69	30.7
Sherman Creek at Shermandale	200	.096	.114	.174	.700	.595	1.62	2.26	2.12	.819	.193	.120	.118	.710	9.68	33.17	29.2
Conodoguinet Creek near Hogestown	470	.187	.174	.257	.998	.670	1.45	1.67	1.62	.481	.291	.184	.145	.679	9.23	31.96	28.9
Swatara Creek at Harper Tavern	333	.140	.108	.217	1.61	.832	2.43	2.35	1.83	.462	.206	.101	.048	.862	11.75	33.96	34.6
Upper Little Swatara Creek at Pine Grove	34.3	.189	.143	.306	1.78	1.06	2.73	2.23	1.94	.391	.182	.102	.047	.927	12.62	34.30	36.8
West Conewago Creek near Manchester	511	.044	.029	.096	.558	.440	1.98	.873	1.67	.250	.123	.026	.047	.513	6.97	31.73	22.0
Muddy Creek at Castle Fin	134	.217	.232	.299	.585	.431	1.30	1.14	1.41	.813	.440	.419	.307	.634	8.62	32.33	26.7

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1929.

Ohio Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Allegheny River at Larabee	545	0.290	0.822	1.63	1.85	0.640	4.94	4.79	3.69	0.563	0.587	0.123	0.168	1.68	22.86	44.22	51.7
Allegheny River at Franklin	6,010	.509	1.71	2.36	3.16	.997	5.24	4.96	4.33	.652	.759	.175	.170	2.10	28.46	46.26	61.5
Brokenstraw Creek at Youngsville	290	.848	2.04	2.32	3.23	1.22	4.86	4.14	3.86	.562	.583	.206	.186	2.01	27.35	46.58	58.7
Tionesta Creek at Nebraska	475	.400	1.28	2.48	3.31	1.15	5.52	4.97	5.26	.697	1.52	.269	.331	2.27	30.94	48.91	63.3
Oil Creek near Rouseville	330	.476	1.56	1.98	2.70	.906	4.55	4.09	4.70	.591	.848	.229	.188	1.91	25.96	47.69	54.4
French Creek at Saegertown	586	1.01	2.87	2.92	3.91	1.98	5.41	4.61	4.47	.604	.652	.169	.146	2.41	32.60	41.99	77.6
Cussewago Creek near Meadville	88	.436	2.15	2.11	2.09	.848	4.65	3.76	3.11	.158	.280	.029	.029	1.65	22.32	44.08	50.6
Clarion River near Piney	980	.351	1.07	1.95	2.74	1.19	5.27	4.57	4.27	.692	1.61	.187	.288	2.03	27.51	46.08	59.7
Redbank Creek at Saint Charles	540	2.09	1.01	1.85	2.65	1.68	4.46	4.39	4.28	.650	1.10	.129	.137	1.89	25.58	44.43	57.6
Mahoning Creek near Dayton	322	1.54	1.17	1.37	1.79	2.02	4.97	5.84	4.04	.668	.938	.201	.125	1.94	26.35	41.40	63.6
Crooked Creek near Ford City	279	.108	.394	.620	1.05	2.19	2.84	3.73	2.51	.412	.307	.061	.040	1.18	16.00	39.99	40.0
Kiskiminitas River at Avonmore	1,720	.248	.445	.878	1.40	2.01	3.65	4.79	3.10	1.01	.549	.294	.223	1.55	20.97	41.59	50.4
Stony Creek at Johnstown	468	.301	.474	.987	.994	1.51	4.12	4.89	2.84	1.30	.577	.348	.306	1.56	21.08	40.80	51.7
Blacklick Creek at Blacklick	386	.159	.453	.845	1.22	1.68	3.16	4.51	2.80	.751	.596	.161	.103	1.37	18.55	42.49	43.7
Loyalhanna Creek at New Alexandria	264	.125	.348	.655	1.15	1.78	3.18	5.30	3.23	1.00	.336	.370	.108	1.46	19.83	43.99	45.1
Youghiogheny River at Friendsville, Md.	295	.573	1.12	2.24	2.49	1.40	3.00	4.61	3.26	1.60	.847	.959	.844	1.91	25.99	44.13	58.9
Youghiogheny River at Connellsville	1,320	.198	.692	1.65	1.87	1.70	3.58	4.64	2.83	1.21	.464	.504	.406	1.64	22.31	42.99	51.9
Youghiogheny River at Sutersville	1,680	.199	.543	1.36	1.71	1.48	3.30	4.23	2.76	1.03	.424	.451	.378	1.49	20.20	42.31	47.7
Casselman River at Markleton	365	.175	.641	1.29	.937	1.30	3.81	4.93	2.77	1.04	.334	.242	.153	1.47	19.92	41.65	47.8
Laurel Hill Creek at Ursina	122	.191	.959	2.19	2.35	1.82	5.53	6.25	3.73	1.43	.573	.421	.286	2.15	29.14	43.78	66.6
Turtle Creek at Trafford	55	.124	.236	.700	1.87	2.47	3.04	4.80	4.00	.480	.293	.084	.054	1.51	20.45	33.87	60.4
Chartiers Creek at Carnegie	260	.182	.205	.546	1.28	1.80	2.22	3.05	2.84	.596	.368	.168	.100	1.11	15.03	34.55	43.5
Shenango River near Jamestown	182	.204	1.35	1.45	2.79	1.18	4.06	3.36	3.56	.279	.588	.120	.075	1.59	21.61	46.07	46.9
Shenango River at Sharon	611	.173	1.13	1.57	2.23	1.14	3.78	3.75	3.68	.264	.534	.097	.088	1.54	20.93	43.76	47.8
Shenango River at New Castle	797	.192	1.11	1.52	2.05	1.15	3.58	3.88	3.55	.304	.566	.105	.067	1.51	20.50	44.08	46.5
Little Shenango River at Greenville	107	.326	1.24	1.36	2.60	1.64	3.75	4.30	4.78	.545	.676	.128	.110	1.79	24.33	43.97	55.3
Pymatuning Creek near Orangeville	170	.157	1.49	2.08	3.21	1.76	5.05	4.99	4.21	.210	.688	.079	.085	2.01	27.21	44.64	61.0
Connoquenessing Creek at Hazen	355	.123	.448	1.33	1.60	1.84	3.01	3.75	3.15	.290	.594	.069	.133	1.36	18.44	43.14	42.7
Slippery Rock Creek at Wurtemburg	404	.450	1.11	1.58	1.79	2.01	3.51	4.83	3.49	.399	1.72	.150	.250	1.77	24.07	47.07	51.1

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches. Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1930.

Ohio Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Allegheny River at Larabee	545	1.29	1.82	2.79	3.71	1.60	3.36	3.28	1.13	0.486	0.117	0.039	0.043	1.64	22.28	36.64	60.8
Allegheny River at Franklin	6,010	.707	1.76	2.95	4.23	2.36	3.49	3.06	1.08	.504	.190	.069	.072	1.70	23.13	37.30	62.0
Brokenstraw Creek at Youngsville	290	.700	2.21	2.80	3.93	2.69	3.10	3.48	.959	.421	.213	.131	.154	1.73	23.44	38.23	61.3
Tionesta Creek at Nebraska	475	1.59	2.80	3.22	4.13	2.42	2.84	3.37	1.14	.406	.159	.081	.080	1.85	25.09	37.53	66.9
Oil Creek near Rouseville	330	.427	1.91	2.22	3.58	2.28	2.81	2.95	.676	.394	.216	.094	.102	1.46	19.90	37.33	53.3
French Creek at Saegertown	586	.386	1.76	3.81	5.09	3.21	4.15	3.60	.922	.503	.196	.069	.119	1.98	26.86	36.64	73.3
Cussewago Creek near Meadville	88	.106	1.19	2.95	3.72	2.55	3.89	2.90	.236	.303	.079	.013	.040	1.50	20.28	38.76	52.3
Clarion River near Piney	980	.148	2.32	2.65	3.63	1.95	2.91	3.07	1.21	.481	.250	.090	.089	1.67	22.78	37.71	60.4
Redbank Creek at Saint Charles	540	1.31	2.52	2.09	3.00	2.13	2.46	2.46	.685	.326	.491	.062	.085	1.46	19.89	37.91	52.5
Mahoning Creek near Dayton	322	2.03	3.03	3.39	2.68	3.05	3.35	1.99	.693	.351	.169	.056	.071	1.73	23.50	33.33	70.5
Crooked Creek near Ford City	279	.724	1.74	1.81	2.18	4.30	1.94	.832	.462	.327	.071	.010	.014	1.18	16.02	34.83	46.0
Kiskiminitas River at Avonmore	1,720	1.23	1.65	2.10	1.62	3.09	2.90	1.71	.884	.872	.347	.165	.162	1.38	18.78	37.89	49.6
Stony Creek at Johnstown	468	1.61	1.55	1.82	1.29	2.61	2.93	1.77	.712	.568	.278	.252	.244	1.29	17.59	35.15	50.0
Blacklick Creek at Blacklick	386	.959	1.92	2.33	1.80	3.34	2.69	1.69	.868	.793	.319	.090	.107	1.40	18.96	39.91	47.5
Loyalhanna Creek at New Alexandria	264	.830	1.34	1.83	1.42	2.88	2.60	1.34	.735	1.85	.188	.091	.139	1.26	17.10	39.18	43.6
Youghiogheny River at Friendsville, Md.	295	2.68	2.83	2.46	1.37	2.76	2.44	1.78	.780	.675	.349	.420	.478	1.58	21.40	39.22	54.6
Youghiogheny River at Connellsville	1,320	2.26	2.27	2.30	1.50	2.51	2.75	1.82	.695	1.05	.211	.117	.125	1.45	19.81	38.64	51.3
Casselman River at Markleton	365	1.91	2.25	2.21	1.43	2.21	2.74	1.82	.608	.918	.185	.089	.077	1.36	18.52	38.06	48.7
Laurel Hill Creek at Ursina	122	2.97	2.59	2.59	2.18	3.96	3.22	2.19	.622	1.63	.245	.108	.088	1.85	25.12	38.07	66.0
Turtle Creek at Trafford	55	.789	1.74	2.02	2.18	3.93	2.76	1.56	.798	.889	.079	.017	.022	1.38	18.73	28.11	66.6
Chartiers Creek at Carnegie	260	.542	1.63	1.26	1.37	1.35	2.50	1.04	.496	.415	.147	.109	.120	.912	12.38	34.49	35.9
Shenango River near Jamestown	182	.173	1.77	2.53	4.26	2.51	2.93	2.31	.215	.163	.121	.023	.036	1.42	19.22	38.57	49.8
Shenango River at Sharon	611	.153	1.56	1.98	3.68	1.85	2.45	2.06	.303	.162	.087	.022	.029	1.19	16.18	36.36	44.5
Shenango River at New Castle	797	.166	1.62	2.08	3.84	1.83	2.56	2.06	.329	.178	.084	.032	.038	1.23	16.75	35.89	46.7
Little Shenango River at Greenville	107	.289	1.94	2.34	4.19	2.93	2.75	3.13	.530	.224	.098	.050	.055	1.53	20.80	35.84	58.0
Pymatuning Creek near Orangeville	170	.161	2.20	2.28	4.87	1.82	2.48	2.05	.191	.139	.061	.018	.040	1.36	18.46	37.31	49.5
Connoquenessing Creek at Hazen	355	1.16	2.38	2.14	3.18	3.21	2.80	1.19	.566	.715	.074	.032	.032	1.45	19.66	39.12	50.3
Slippery Rock Creek at Wurtemburg	404	1.13	2.27	2.25	3.27	1.72	2.42	1.49	.876	.577	.162	.087	.099	1.36	18.48	34.29	53.9

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1931.

Ohio Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Allegheny River at Larabee	545	0.046	0.048	0.123	0.109	0.417	1.27	4.18	3.65	2.04	0.387	0.321	0.178	1.06	14.43	38.72	37.3
Allegheny River at Franklin	6,010	.086	.128	.719	.431	1.10	2.00	3.76	2.58	1.40	.318	.288	.159	1.08	14.63	35.51	43.7
Brokenstraw Creek at Youngsville	290	.179	.198	.993	.707	1.37	2.68	3.22	1.83	1.08	.196	.172	.110	1.06	14.36	35.04	41.0
Tionesta Creek at Nebraska	475	.095	.103	.297	.210	.754	1.94	3.92	2.38	1.61	.484	.248	.215	1.02	13.83	40.81	33.9
French Creek at Saegertown	586	.183	.360	1.95	.710	2.06	3.11	3.31	1.88	.862	.195	.117	.111	1.23	16.69	32.93	50.7
Cussewago Creek near Meadville	88	.088	.314	2.30	1.93	1.60	2.35	2.31	1.92	.593	.090	.059	.029	1.13	15.35	35.49	43.3
Clarion River near Piney	980	.093	.104	.186	.193	.587	1.51	3.19	2.53	1.33	.518	.412	.290	.949	12.93	37.14	34.8
Redbank Creek at Saint Charles	540	.075	.094	.139	.093	.691	1.19	2.93	2.30	1.66	.393	.289	.446	.856	11.60	35.51	32.7
Mahoning Creek near Dayton	322	.066	.086	.123	.136	.947	1.50	3.73	2.33	1.56	.559	.245	.758	1.00	13.56	37.27	36.4
Crooked Creek near Ford City	279	.014	.020	.034	.041	.946	.746	2.93	1.02	1.03	.190	.180	.498	.631	8.57	33.96	25.2
Kiskiminitas River at Avonmore	1,720	.122	.126	.189	.375	1.01	1.33	3.24	2.72	1.09	.756	.561	1.01	1.04	14.14	38.85	36.4
Stony Creek at Johnstown	468	.158	.144	.208	.509	1.02	1.68	3.03	3.31	.739	1.09	.765	.861	1.13	15.29	40.52	37.7
Blacklick Creek at Blacklick	386	.094	.097	.151	.264	1.01	1.39	3.32	2.38	1.02	.604	.258	.622	.930	12.61	37.40	33.7
Loyalhanna Creek at New Alexandria	264	.145	.185	.172	.360	1.28	1.09	3.43	2.77	1.20	.816	.890	1.55	1.11	15.07	43.77	34.4
Youghiogheny River at Connellsville	1,320	.105	.064	.224	.886	1.82	2.17	3.40	3.31	.723	.676	.714	1.14	1.27	17.16	43.03	39.0
Casselman River at Markleton	365	.042	.067	.351	1.29	1.66	2.19	3.40	3.10	.556	.767	.786	.819	1.25	16.94	42.85	39.5
Laurel Hill Creek at Ursina	122	.050	.073	.346	1.34	2.11	2.41	3.98	3.20	.491	.502	.893	1.07	1.37	18.54	42.66	43.5
Turtle Creek at Trafford	55	.010	.047	.092	.215	.364	.689	3.02	3.20	1.34	.320	.162	.431	.822	11.19	34.46	32.5
Shenango River near Jamestown	182	.074	.116	.742	.874	1.27	1.23	1.91	1.65	.363	.068	.085	.049	.698	9.49	35.86	26.5
Shenango River at Sharon	611	.049	.069	.403	.511	.992	.977	1.72	1.67	.393	.071	.066	.061	.578	7.86	31.99	24.6
Shenango River at New Castle	797	.063	.088	.380	.404	.908	.887	1.71	1.59	.477	.076	.063	.063	.556	7.55	31.96	23.6
Little Shenango River at Greenville	107	.051	.059	.221	.355	1.08	1.05	1.88	2.03	.432	.093	.068	.081	.613	8.32	31.14	26.7
Pymatuning Creek near Orangeville	170	.058	.104	.435	.475	.965	.941	1.95	1.64	.224	.048	.040	.038	.573	7.79	31.34	24.9
Connoquenessing Creek at Hazen	355	.032	.035	.066	.046	.656	.730	2.25	1.55	1.26	.363	.132	.389	.623	8.44	34.52	24.4
Slippery Rock Creek at Wurtemburg	404	.095	.106	.145	.139	.673	.720	1.49	1.46	.869	.275	.257	.210	.535	7.25	32.36	22.4

Note.—See record of individual station for notations regarding diversion and storage.

Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per cent Run-off to precipitation, for the year ending September 30, 1932.

Ohio Basin

Station	Drainage area	Run-off in second-feet per square mile													Run-off	Precipitation	Per cent
	Square miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to precipitation
Allegheny River at Larabee	545	0.101	0.292	2.28	4.15	2.02	1.70	3.08	2.40	0.558	0.224	0.064	0.042	1.41	19.21	35.59	54.0
Allegheny River at Franklin	6,010	.159	.586	2.40	4.29	2.45	1.98	3.08	2.51	.418	.346	.125	.088	1.54	20.91	37.95	55.1
Brokenstraw Creek at Youngsville	290	.109	.710	2.18	4.28	2.26	2.40	2.89	2.87	.421	.366	.184	.155	1.57	21.37	39.23	54.5
Tionesta Creek at Nebraska	475	.137	.360	2.97	5.35	2.01	1.79	2.88	3.16	.339	.199	.085	.076	1.62	22.02	40.06	55.0
French Creek at Saegertown	586	.189	1.04	2.63	4.83	2.73	2.65	2.92	2.44	.288	.273	.111	.086	1.68	22.91	36.42	62.9
Cussewago Creek near Meadville	88	.107	1.33	2.92	4.42	2.57	2.02	2.22	1.58	.079	.081	.014	.0066	1.44	19.68	35.36	55.7
Clarion River near Piney	980	.166	.298	3.17	4.93	1.95	1.44	2.64	2.44	.441	.440	.120	.090	1.49	20.61	35.38	58.3
Redbank Creek at Saint Charles	540	.194	.311	2.91	4.69	1.58	1.21	2.30	1.18	.457	.574	.174	.083	1.31	17.83	36.10	49.4
Mahoning Creek near Dayton	322	.329	.286	2.85	4.75	1.79	1.66	2.24	1.15	.497	.714	.178	.093	1.38	18.82	35.88	52.5
Crooked Creek near Ford City	279	.194	.193	2.00	3.52	1.23	1.42	1.35	.398	.161	.257	.030	.011	.900	12.27	34.87	35.2
Kiskiminitas River at Avonmore	1,720	.622	.426	2.54	2.66	1.95	2.70	2.63	1.27	.363	.271	.181	.132	1.31	17.87	34.70	51.5
Stony Creek at Johnstown	468	.404	.306	2.48	2.18	2.02	3.08	2.91	1.42	.415	.269	.263	.231	1.33	18.13	33.08	54.8
Blacklick Creek at Blacklick	386	.484	.399	2.37	2.95	1.74	2.33	2.35	1.16	.345	.381	.172	.088	1.23	16.79	34.75	48.3
Loyalhanna Creek at New Alexandria	264	.845	.390	2.65	2.56	1.63	2.78	2.05	1.28	.305	.164	.097	.062	1.24	16.86	36.86	45.7
Youghiogheny River at Connellsville	1,320	.684	.456	3.22	2.50	2.57	3.21	2.91	2.33	.652	.660	.527	.246	1.67	22.67	41.56	54.5
Youghiogheny River at Sutersville	1,680	.643	.386	2.80	2.40	2.29	2.81	2.74	1.93	.558	.792	.477	.232	1.51	20.50	39.56	51.8
Casselman River at Markleton	365	.460	.290	2.46	2.11	2.50	2.88	2.68	2.30	.381	.367	.225	.082	1.39	18.98	39.15	48.5
Laurel Hill Creek at Ursina	122	.934	.556	4.58	3.10	2.43	3.99	3.41	2.18	.397	1.02	.456	.070	1.93	26.31	38.89	67.7
Turtle Creek at Trafford	55	.109	.238	2.38	3.76	1.14	1.80	1.22	.724	.065	.043	.017	.010	.965	13.13	29.10	45.1
Shenango River near Jamestown	182	.099	.457	1.75	3.55	1.82	1.48	1.58	1.78	.098	.164	.042	.024	1.07	14.59	33.81	43.2
Shenango River at Sharon	611	.073	.234	1.37	3.50	1.53	1.09	1.52	1.38	.115	.196	.044	.027	.925	12.60	35.29	35.7
Shenango River at New Castle	797	.074	.207	1.28	3.50	1.54	1.07	1.57	1.30	.130	.242	.053	.035	.917	12.50	35.36	35.4
Little Shenango River at Greenville	107	.102	.304	1.82	4.84	1.58	1.49	1.64	1.64	.187	.257	.102	.070	1.18	15.99	37.76	42.3
Pymatuning Creek near Orangeville	170	.066	.206	1.16	4.15	1.39	1.09	1.32	1.51	.079	.174	.034	.013	.935	12.74	35.56	35.8
Connoquenessing Creek at Hazen	355	.120	.129	2.20	4.79	1.28	1.32	1.79	.879	.146	.201	.061	.071	1.08	14.79	35.01	42.2
Slippery Rock Creek at Wurtemburg	404	.123	.189	2.40	4.90	1.33	1.20	1.52	1.23	.209	.314	.120	.103	1.14	15.54	35.70	43.5

Note.—See record of individual station for notations regarding diversion and storage.

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